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**COUNTY OF LOS ANGELES  
DEPARTMENT OF PUBLIC WORKS  
Waterworks District 29 and  
Marina Del Rey Water System**

**2005  
URBAN WATER MANAGEMENT PLAN**



**December 2005**

Prepared For:

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## **1.0 INTRODUCTION**

The 2005 Urban Water Management Plan (UWMP) for Los Angeles County Waterworks District 29, Malibu and the Marina Del Rey Water System (District) was prepared in accordance with the California Urban Water Management Planning Act of 1984. (Appendix A presents a copy of the Act and its provisions). The Act has been amended several times since its passage, with the most recent amendment in 2004. The Act requires every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000/AF (acre-feet) of water annually to prepare and adopt, in accordance with prescribed requirements, an Urban Water Management Plan. Pursuant to section 10621.a. of the Act, each urban water supplier shall update its plan at least once every five years on or before December 31, in calendar years ending in five and zero.

### **1.1 Formation of Waterworks District 29 and Marina Del Rey Water System**

The District was formed in accordance with Division 16 Sections 55000-55991 of the State Water Code. The District is governed by the Los Angeles County Board of Supervisors with the Waterworks and Sewer Maintenance Division of the County of Los Angeles Department of Public Works (DPW) providing administration, operation, and maintenance of the District's facilities and infrastructure.

### **1.2 Public Participation**

The 2005 UWMP was adopted by the Board of Supervisors on **November 15, 2005** and submitted to the California Department of Water Resources within 30 days of the Board's adoption. A public hearing was held during the meeting to include public review and comments on the 2005 UWMP. Notice of the preparation of the plan and the public hearing was made in \_\_\_\_\_ and a copy of the plan was distributed to interested parties and placed in the local libraries throughout the District.

### **1.3 Coordination within the County**

DPW staff of the Waterworks and Sewer Maintenance Division have coordinated with the County of Los Angeles Department of Regional Planning to develop the population projections for this plan.

### **1.4 Interagency Coordination**

The District is a retail agency under the service area of West Basin Municipal Water District (West Basin MWD). Coordination with West Basin MWD's staff to project the supply reliability and coordinate various water conservation programs has assured consistency between the two agency plans. The District also worked with the Southern California Association of Governments (SCAG) to determine population growth in the service areas.

## 1.5 Purpose of the Urban Water Management Plan

The purpose of Urban Water Management Plans is to help water agencies plan for future water supply and demand within their service areas. Water in the State of California is a limited resource. The District recognizes that conservation and efficient use of water are critical, and has prepared this UWMP to ensure an appropriate level of reliability in its water service to meet the needs of its customers during normal, dry and multiple dry years.

## 1.6 Climate

The District's service areas lie along the Pacific Coast. The climate is Mediterranean, characterized by warm, dry summers and wet, cool winters with average precipitation of 13 inches per year. The steady climate and low rainfall makes the area a popular vacation location for tourists. In Table 1.1 the average monthly temperature, rainfall and evapo-transportation rates (ETo) are displayed. The temperature and precipitation data was collected via the Western Regional Climate Center's website at the Los Angeles WSO Airport weather station. The period of record for the temperature and precipitation is from the year 1914 to 2005. The ETo data was obtained from the California Irrigation Management Information System (CIMIS) at the Santa Monica station for the Los Angeles Region.

**Table 1.1 Temperature, Precipitation, and ETo**

	Jan	Feb	Mar	Apr	May	Jun
Average Max. Temperature (F)	65.1	65.6	66.4	68.2	70.1	73.3
Average Min. Temperature (F)	47.9	49.1	50.6	52.8	55.9	59
Average Total Precipitation (in.)	2.9	3.15	2.08	0.91	0.21	0.06
Average ETo	1.79	2.12	3.3	4.49	4.73	5.03

	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	77.2	78.3	77.5	74.6	71.4	66.5	71.2
Average Min. Temperature (F)	62.3	63.2	61.9	58.2	52.9	48.7	55.2
Average Total Precipitation (in.)	0.01	0.06	0.22	0.43	1.22	2.21	13.47
Average ETo	5.4	5.38	3.94	3.4	2.42	2.22	3.69

[1] Data taken from the Western Regional Climate Center's website at the Los Angeles WSO Airport Station: <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?calosa>.

[2] ETo data taken from the California Irrigation Management Information System (CIMIS) at the Santa Monica Station for Calendar Year 2004: <http://www.cimis.water.ca.gov/cimis/welcome.jsp>.

## **1.7 Other Demographic Factors**

The District provides water service to the City of Malibu, Pepperdine University, Marina Del Rey Water System, and the unincorporated Topanga Canyon area. The District's service area includes an estimated population of 24,973 served through approximately 7,761 active meters. The majority of these connections serve residential communities with some services to commercial, landscape, fire protection, and other public agencies.

### **Malibu area**

The Malibu water service area is a narrow strip along the coastline, with numerous canyons running northwards. As shown on the following two pages it is bounded on the north by the steep and rugged Santa Monica Mountains, on the east by Topanga Canyon, on the west by Ventura County and on the south by the Pacific Ocean. The District occupies an area of about 47.50 square miles (30,400 acres). Incorporation of the City of Malibu occurred in 1991, and the District has been supplying water to customers in Malibu area since 1973. The major projects that were constructed during the previous five years have been provided in the following paragraphs.

Due to a growing population, natural disasters and outdated water systems in the Malibu area, improvement projects have been integrated in the development of the City to increase water service reliability. Between Rock Drive and Tuna Canyon Rd. along Pacific Coast Highway, a known landslide area, a bypass system was installed consisting of three 10-inch diameter pipelines to temporarily replace a 30-inch pipeline in emergencies. After the 1993 fire in Malibu the 200,000 gallon reinforced concrete La Costa water tank was heavily damaged. The County replaced the damaged tank with a larger 400,000 gallon welded steel water storage tank located across from the old site.

To meet increasing water demands, the Topanga Fernwood water mainline was upgraded. It was replaced with approximately 450 feet of 12-inch water main. A new pump house was constructed. The pump house and water main were designed to pump water directly to the Topanga Forks and Topanga Beach Tanks for storage. The new pump station houses six new vertical turbine pumps. Four existing pumps are to be phased out once all six pumps at the new pump station are operational. Another similar project was completed at Sumacridge reservoir. A 300,000 gallon tank was constructed along with a new pump station with three new pumps and appurtenances at the Sumacridge reservoir site. The District also replaced a 4,000-ft water main in Encinal Canyon to meet water demand in that area.

### Marina Del Rey area

The Marina Del Rey Water System (Marina Del Rey) is a smaller system served directly off the transmission main delivering water to the Malibu System. As shown in Figure 1-1, at the end of Section 1.7, Marina Del Rey's service area encircles the Marina Del Rey Harbor, providing service to businesses, as well as apartment and condominium complexes in the Marina Del Rey area through 300 service connections.

An Adequacy Study for Marina Del Rey, conducted by the County of Los Angeles Department of Beaches and Harbors, found the existing water system facilities were designed and constructed in 1961/62 to accommodate low density, two story structure land use. Subsequently, the land use has changed to high density, high rise structures, and the existing water system has not been upgraded to meet the increased demands.

Twelve million dollars of system improvements for the Marina Del Rey area have been recommended to support existing and future growth. These water system improvements were broken into five phases and scheduled for construction over a 13-year period from 1997 to 2010. They include replacement of transmission mains, metering stations, upgrades, and the construction of a 3.6 million-gallon reservoir storage tank. Phases I and IA have been completed over the last five years. Phase II is scheduled to be constructed before 2010 and Phase IV has been eliminated due to changes in the system design. The remaining phases of construction will be completed as funds in the District's Accumulative Capital Outlay Fund become available.

Figure 1-1 is a map of Los Angeles County Waterworks Districts. The map shows the boundaries of various waterworks districts, including Mullholland, Decker, Westlake, Agoura Hills, Hidden Hills, Calabasas, Malibu, Topanga, Encino, Sepulveda, Van, Woodman, Lower Franklin, Upper Stone Canyon, and Marina Del Rey. Major roads like Pacific Coast Highway, Ventura Highway, and Santa Monica Highway are shown. The Pacific Ocean is to the west. A north arrow and "NTS" (Not To Scale) are included.

## MAP OF



NTS

**MARINA DEL REY**  
**WATER SYSTEM**

MARINA  
DEL REY

# REAL

VEL SEG

**15-00000**

WTR - PMAA - ALL - PMAA

## 1.8 Population

The Southern California Association of Governments (SCAG) has developed population projections by census tract within the County of Los Angeles. Based on these projections, the population within the census tracts containing the District is estimated to increase 5 to 12 percent every five years. However, these census tracts include areas outside of the District that are expected to have greater growth than the areas within the service area of the District. For this report it is estimated that population will increase by 2 to 5 percent every five years. This estimate is consistent with the past growth in water demand over the last several years.

Table 1.2 below displays the population growth projections over the various regions in the District from the year 2000. Projections have been shown through 2030. This table provides two projection estimates; one is based on SCAG projections and the other is based on the observed growth in the number of new connections per year.

**Table 1.2 Population Projections**

<b>Southern California Association of Gov't (SCAG) Based Projections</b>							
	2000	2005	2010	2015	2020	2025	2030
City of Malibu	12,656	13,471	13,721	14,546	15,370	16,196	17,000
Northern Topanga	3,276	3,548	4,714	5,294	5,925	6,453	6,896
Southern Topanga	3,207	3,623	4,283	4,770	5,293	5,772	6,185
Marina Del Rey	8,334	10,143	11,587	12,402	13,205	14,065	14,891
Dist. 29 (Exclude Marina del Rey)	19,139	20,642	22,718	24,610	26,588	28,421	30,081
<b>Total District 29 Population</b>	<b>27,473</b>	<b>30,785</b>	<b>34,305</b>	<b>37,012</b>	<b>39,793</b>	<b>42,486</b>	<b>44,972</b>
Percent (%) Growth over 5 Year Period	12%	11%	8%	8%	7%	6%	5%
<b>Population Estimates Based on the anticipated number of New Connections Multiplied by Average Person Per Household (APPH)</b>							
	2000	2005	2010	2015	2020	2025	2030
Number of Connections	7,331	7,614	7,842	8,078	8,320	8,570	8,827
Projected Population	24,430	29,918	31,977	33,430	34,886	36,421	37,941
Percent (%) Growth over 5 Year Period	22%	7%	5%	4%	4%	4%	4%

## 1.9 Past Drought, Water Demand, and Conservation Information

The District experienced a drought from 1989 to 1992 and the County of Los Angeles took several efforts to reduce water usage and promote water conservation. One effort

was the "Phased Water Conservation Plan," where the County Supervisors adopted a nine stage (phased) approach to reduce water usage. The Plan set up nine conservation targets for the District to meet the anticipated shortage in water supply. (See Appendix B for LA County Ordinance No. 91-0075M)

In addition, there was a voluntary conservation effort in 1990 requested by Metropolitan Water District of Southern California (MWD) for the District to reduce its water consumption by 10 percent. During the four-month duration of the request (June through September of 1990), the District reduced its monthly water consumption by 12 percent. The District's wholesaler, West Basin MWD, reported that during the four-month conservation effort the District saved more than 273 acre-feet (AF) of water.

The District has a water supply composed entirely of imported water. On April 11, 1996, the District became signatory to the Urban Water Conservation Council's (CUWCC) Memorandum of Understandings (MOU) in order to increase the District's commitment to implement water conservation and prepare the service area for potential water shortages in the future.

## 2.0 WATER SUPPLY

The District receives all of its water supply from imported sources. The District purchases the majority of its water from West Basin MWD, and the remainder through emergency interconnections with the City of Los Angeles Department of Water and Power and Las Virgenes Municipal Water District.

Table 2-1 displays the current and projected water supply available to the District from West Basin MWD. Because the District's distribution system does not have long term water supply storage, the reliability of the District supply is completely dependent on the availability of water from West Basin MWD.

**Table 2.1 Current and Projected Water Supply**

Projected Wholesale Water Supply							
Purchases from wholesaler (Acre-feet per year)							
Water Supply Sources	2000	2005	2010	2015	2020	2025	2030
West Basin MWD	9,450	10,300	11,867	12,803	13,765	14,697	15,557
City of Los Angeles DWP	Emergency Interconnections Only						
Las Virgenes MWD	Emergency Interconnections Only						
Recycled Water	140	140	140	140	140	140	140
Total	9,590	10,440	12,607	13,590	14,601	15,579	16,481

### 2.1 Imported Water

#### Malibu & Topanga areas

West Basin MWD receives the water supply for the District from the Metropolitan Water District of Southern California (MWD). The water the District purchases from West Basin MWD is delivered from the District's interconnection with West Basin MWD in the City of Los Angeles to the District's easterly boundary through a 15-mile, 30-inch high-pressure transmission main. Because of the topography of the District, the water is then delivered 20 miles through a transmission main in Pacific Coast Highway (PCH) to the westerly boundary of the District. The water is pumped into the District's storage tanks to provide service to Topanga Canyon and the other canyon areas located along PCH.

The District has four emergency interconnections; two with the City of Los Angeles Department of Water and Power (LADWP) and two with the Las Virgenes Municipal Water District. Major system facilities include approximately 200 miles of water main of which approximately 5 percent (53,600 linear feet or 10.2 miles) are above ground. The major system also includes 32 pump stations and 52 storage tanks with approximately 20 million gallons of storage capacity.

Currently, the Malibu system has approximately one day of storage during periods of peak demand. Water received from the West Basin MWD is distributed via the 30-inch main through the 32 pump stations to 35 pressure zones. The water system is comprised of District constructed facilities built mostly in the 1960's, as well as facilities constructed by various small mutual water companies and neighborhood homeowners dating back to the 1930's and 1940's. Therefore, the overall water system is an amalgamation of old small systems joined to create the Malibu system. In this unique system, the combination of old facilities and difficult terrain causes maintenance and operation costs to be higher than other water districts.

In 1998, the District conducted an updated review of system deficiencies. Preliminarily recommending capital improvements of \$108.5 million to upgrade the Malibu water system with storage and fire flow improvements being the main focus. However, repetitive failures in the aging system require funds to be targeted for immediate repairs without much progress on needed capital improvements.

### Marina Del Rey

The Marina system is an extension of the District and accounts for 17 percent of the water demand from West Basin MWD. This smaller system is served directly off the transmission main delivering water to the Malibu system. There are no pump stations or storage tanks within the Marina water system, but it has a connection to one million gallons of storage at the Sunset Mesa tank site in the Malibu area for emergency purposes. The Marina system also has two emergency interconnections with LADWP.

## **2.2 Recycled Water**

Production and use of recycled water is limited in the District because the community served is predominately on individual septic systems. A portion of the wastewater generated in the area is collected and treated by small private and publicly owned package wastewater treatment plants serving individual developments. DPW operates and maintains the collection and treatment systems of three publicly-owned treatment plants (Malibu Mesa Water Reclamation Plant, Malibu Water Pollution Control Plant and Trancas Water Pollution Control Plant) serving the area. The total treatment capacity of these publicly owned facilities is approximately 312,500 gallons per day (gpd). Of these plants, only the Malibu Mesa Plant generates recycled water for irrigation use.

The Malibu Mesa Plant serves an estimated population of 3,360 persons at Pepperdine University, in the unincorporated area, and the Malibu Country Estates, a residential subdivision in the City of Malibu. The wastewater from the plant is recycled to Title 22 standards for landscape irrigation. The facility provides preliminary, secondary and tertiary treatment, with disinfection by an ultraviolet system. Tertiary treatment is provided by coagulation, rapid mix, flocculation and sand filtration. The recycled water is then used by Pepperdine University for landscape irrigation of approximately 113 acres on the campus and approximately 1.6 acres on the plant site. Recycled water generation and use has varied over the past 5 years, due to variation in the volume of

wastewater produced and the demand for irrigation based on soil moisture content and climatic factors. In 2004, 100 percent of the effluent produced, approximately 45.5 million gallons (140 acre-feet) of wastewater treated at the Malibu Mesa Plant, was used for landscape irrigation. DPW does not expect the use of recycled water to increase in the future because significant growth is not projected for the plant's service area.

The District is within the service area of West Basin MWD's Recycled Water Program. Under this program, West Basin MWD produces recycled water for 13 Southern California cities in its service area. Although the program does not service the District with recycled water because of its location, it does provide an indirect benefit. The Recycled Program reduces demand on potable water by other water districts and ensures a strong reliable source for the District. According to West Basin MWD's 2005 Urban Water Management Plan, West Basin expects to increase recycled water production from 14,000 AF/year to nearly 43,750 AF/year by the year 2030.

### **2.3 Groundwater**

The geology below the District's service area lacks groundwater basins capable of producing an adequate supply of groundwater. Therefore no supply from ground water sources will be used for future water supply within the District.

## 3.0 WATER USE

### 3.1 Past, Current and Projected Water Use

Table 3.1 displays the past, current and projected water use for each water use sector in the District. Based on SCAG projections, water use within the District will increase 45% over the next 25 years. This can be explained by overall build up within the District.

**Table 3.1 Past, Current, and Projected Water Use (Acre-Feet)**

Water Use Sectors	2000	2001	2004	FY '04-'05	2010	2015	2020	2025	2030
Single Family Residential	-	6,381	7,293	6,827	7,596	8,195	8,811	9,407	9,958
Multi-Family Residential	-	681	667	667	742	800	860	919	972
Commercial	-	443	443	445	495	534	574	613	649
Private Fire Protection	-	20	25	27	30	32	34	37	39
Landscape / Irrigation	-	294	338	306	341	368	395	422	447
Other	-	592	954	963	1,071	1,156	1,243	1,327	1,404
Water Sold	8,228	8,411	9,719	9,235	10,274	11,085	11,918	12,724	13,469
Water Purchased	9,450	9,733	10,715	9,941	11,302	12,194	13,110	13,997	14,816

<sup>(1)</sup> Landscape/Irrigation includes potable and recycled water

<sup>(2)</sup> Includes: Private Fire Protection, Temporary Construction, Combined Domestic & Private, Gov't/Public Agencies, and Other Sectors

<sup>(3)</sup> 10% water loss is assumed for projections of Wholesale Water use due to the condition of the District's Distribution System

The District began tracking water use by customer type in 2001. Previously, water use data was only available for the District as a whole. Projected water use through 2030 was estimated using the observed water use per person based on the District's historic billing records and the population projections made by SCAG. Current water use in the District was estimated at 97,600 gallons/year/person (0.2995 acre-feet/year/person) using data from 2000-2005.

Table 3.2 below displays the actual and projected number of connections by customer type for years 2000 to 2030. Based on these numbers, connections are estimated to increase by approximately 46 percent by the year 2030.

**Table 3.2 Number of Connections by Customer Type**

Connection Type	2000	2005	2010	2015	2020	2025	2030
Single Family Residential	6,793	7,080	7,889	8,512	9,152	9,771	10,343
Multi-Family Residential	86	91	101	109	118	126	133
Commercial	123	116	129	140	150	160	170
Private Fire Protection	79	111	124	133	143	153	162
Landscape / Irrigation	108	109	121	131	141	150	159
Other	142	107	119	129	138	148	156
Total No. of Meters	7,331	7,614	8,484	9,154	9,842	10,508	11,123

<sup>(1)</sup> Other Connections includes: Private Fire Protection, Temporary Construction, Public/Gov't Agencies, Combined Domestic & Private, and Other

Source: County Waterworks Division

### 3.2 Residential Sector

Single Family and Multi-Family Residential Customers account for the majority of water use within the District. For the City of Malibu, the average persons per household is 2.7 based on SCAG estimates from 2000.

Residential customer connections have increased 4 percent since 2000. Over the next 25 years, development in the residential sector will consist of infill growth and conversion of commercial facilities into multi-family residential units.

### 3.3 Commercial/Institutional Sector

The District's service area includes a commercial sector ranging from markets and restaurants to shopping centers. The commercial sector is predominately within the Marina Del Rey water system service area and along the coastline in the City of Malibu, due to the high tourist activity along the Pacific Coast Highway. The commercial connections are expected to have minimal growth over the next twenty years due to the built out commercial sector of the District.

The service area has a stable institutional sector within the District, which includes government buildings within the City of Malibu, schools, public facilities, and public hospitals. Growth in this sector is also expected to be minimal for the next 25 years.

### **3.4 Landscape/Irrigation Sector**

Landscape irrigation includes golf courses, residential lawns, parks, and schools. All landscape irrigation uses potable water except for landscape within Pepperdine University. All irrigation water use in Pepperdine is recycled water from the Malibu Mesa Reclamation Plant. Growth in this sector is expected to be minimal for the next 25 years.

### **3.5 Other**

The remainder of the water use in the District is for private fire protection, construction, and public/government facilities. Growth in this sector is expected to be minimal for the next 25 years.

## **4.0 WATER RELIABILITY**

### **4.1 Reliability**

Reliability is a measure of a water system's expected success in managing water shortages. Reliability planning requires information about the following: (1) expected frequency and severity of shortages; (2) how additional water management is likely to effect the frequency and severity of shortages; and (3) how available contingency measures can reduce the impact of shortages when they occur.

### **4.2 Frequency and Magnitude of Supply Deficiencies**

The District experienced a drought between 1987 and 1991. During this period, supply in Southern California decreased and MWD called for water use reductions throughout its service area. To meet these reductions, the County of Los Angeles adopted three ordinances in 1991.

The first was Ordinance No. 91-0046U, which called for a water waste prohibition for the unincorporated areas of the County. The water saving measures included limiting car washes, preventing excessive landscape watering, and prohibiting washing paved surfaces. Any failures to comply with these provision resulted in a fine.

The second and most significant measure adopted was Ordinance No. 91-0075M, which created the Phased Water Conservation Plan. Through nine phases, the Board of Supervisor can declare mandatory percentages of water use reductions in order to stretch water supplies. In 1991, the Board of Supervisors declared a "Phase Three" shortage with a goal to reduce water consumption in the District by 20 percent. Any customers that exceeded this target quantity were assessed a conservation surcharge on their bill.

On June 27, 1991, the County adopted Ordinance No. 91-0097U, which amended the plumbing code by requiring the installation of ultra low flow toilet and urinals in all new buildings.

All these measures, including efforts by the community to conserve water, resulted in a 21 percent reduction in the Malibu area and a 15 percent reduction in the Marina Del Rey area, between May 1991 and April 1992. This effort created an estimated combined savings of approximately 1,800 acre-feet of potable water.

### 4.3 Reliability Comparison

Table 4-1 shows the anticipated water demand in the District's service area for an average or "normal" water year, a single dry water year, and multiple dry water years. The Normal Water Year demand is based on data from 2000-01 which was a year of normal rainfall. According to the National Weather Service, the recorded rainfall in 2000-01 was 17.94 inches. This was one of the closest years to the historical 100 year average (16.42 inches). The Single Dry Year demand is based on the lowest rainfall year of 2001-02. The recorded rainfall in 2001-02 was 4.42 inches – the lowest recorded year in over 100 years. The three Multiple Dry-Water Year demands are based on the most recent multiple dry year period of 2001-2004.

**Table 4.1 Supply Reliability**

Supply Reliability in AF per Year					
Supplies	Normal Water Year	Single Dry Water Year	Multiple Dry-Water Years		
			Year 1	Year 2	Year 3
Imported Water	9360	10418	10418	10303	10690

The most significant reason for an increase in water demand during single dry and multiple dry years is the increased landscape irrigation that occurs to compensate for reduced rainfall.

### 4.4 Plans to Assure a Reliable Water Supply

The District purchases all of its water supply from West Basin MWD. While emergency connections do exist with Las Virgenes MWD and LADWP, they do not supply an adequate and reliable source. Therefore, a reliable water supply is completely dependent on the availability of water from the District's wholesaler, West Basin MWD.

#### West Basin MWD Reliability Plan

According to West Basin MWD's 2005 Urban Water Management Plan, West Basin MWD and Metropolitan Water District have taken important steps to reduce the vulnerability of supplies to extended droughts or other potential threats to reliability. These efforts have included using more recycled water for non-potable uses, expanding the use of local groundwater resources through conjunctive use programs, and searching for potential water transfers and exchanges with imported water supplies other than those already available to Metropolitan Water District.

Central to these efforts is the expanded use of recycled water in West Basin MWD's service area. A sharp increase in recycled water demand will result in a reduction in imported water demand beginning in 2005. According to the 2005 West Basin MWD

UWMP, imported water use in West Basin MWD's service area should decrease through 2030.

### Metropolitan Water District's WSDM Plan

With the experience of the droughts of 1977-78 and 1989-92, Metropolitan Water District undertook a number of planning initiatives to ensure supply reliability. These efforts include the Integrated Resources Plan (IRP), the Water Surplus and Drought Management Plan (WSDM Plan) and other local resource investments. Together, these initiatives have provided the policy framework for Metropolitan Water District and its member agencies to manage their water resources in such a way to meet the needs of a growing population even under recurrences of the worst historical hydrologic conditions locally and in the key watersheds that supply water to southern California.

In April of 1999, Metropolitan Water District's Board of Directors adopted the WSDM Plan to guide the management of regional water supplies to achieve reliability goals of Southern California's Integrated Resources Plan (IRP). Through effective management of its water supply, Metropolitan Water District fully expects to be 100 percent reliable throughout the next 20 years.

The guiding principle of the WSDM Plan is to minimize adverse impacts of water shortage to retail customers. From this guiding principle come the following supporting principles:

- Encourage efficient water use and economical local resource programs.
- Coordinate operations with member agencies to make as much surplus water as possible available for use in dry years.
- Pursue innovative transfer and banking programs to secure more imported water for use in dry years.
- Increase public awareness about water supply issues.

The WSDM Plan further defines five surplus management stages and seven shortage management stages to guide resource management activities. Each year, Metropolitan Water District will consider the level of supplies available and existing levels of water in storage to determine the management actions designed to 1) avoid an Extreme Shortage to the maximum extent possible, and 2) minimize adverse impact to retail customers should an Extreme Shortage occur. The current sequencing outlined in the WSDM Plan reflects anticipated responses based on detailed modeling of Metropolitan Water District's existing and expected resource mix. This sequencing may change as the resource mix evolves.

The WSDM Plan also guides the operations of water resources (local resources, Colorado River, State Water Project, and regional storage) to ensure regional reliability. It identifies the expected sequence of resource management actions Metropolitan Water District will take during surpluses and shortages to minimize the probability of severe shortages that require curtailment of full-service demands.

West Basin MWD supports the WSDM plan, however, at this time the Plan does not include a detailed allocation plan. Metropolitan Water District is currently developing a plan to describe how imported water will be allocated in the event that demands exceed imported supply. Once completed, West Basin MWD will pass the allocation to its retailers. The District also has a water shortage contingency plan that is explained in Section 7 of this report.

#### **4.5 Water Transfers or Exchanges**

The District does not currently participate in any out of region water transfers. The District relies on West Basin MWD as their water supplier.

#### **4.6 Increasing District Demands**

The District's water demand is projected to increase at a steady rate. The wholesale supply of potable water available to the District from West Basin MWD is also projected to increase. The reason that West Basin is able to meet the water demands of the District is due to the increased use of recycled water by West Basin MWD's other customers. The use of recycled water reduces the demand on West Basin's imported supply which in turn increases the available imported water to the District.

## 5.0 SUPPLY AND DEMAND COMPARISON PROVISIONS

### 5.1 Supply and Demand Comparison during Normal/Average Years

The District receives 100 percent of its water supply from West Basin MWD. Therefore, the available supply from West Basin MWD must be equal to the projected water demands for the District in order for the District's supply to be 100% reliable for its customers.

Table 5-1 displays a sufficient supply to meet the demand of the District. West Basin MWD's Urban Water Management Plan projects a 100% reliable supply of water for all retail agencies served by West Basin MWD for the next 25 years. This assumption is assured through Metropolitan Water District's WSDM Plan and the Diamond Valley Reservoir.

**Table 5.1 Projected Supply and Demand Comparison**

Projected Supply and Demand Comparison						
(In Acre-Feet/Year)						
	2005	2010	2015	2020	2025	2030
<b>Total supply from West Basin MWD</b>	10,300	11,867	12,803	13,765	14,697	15,557
<b>Total demand for the District*</b>	9,941	11,302	12,194	13,110	13,997	14,816
<b>Difference</b>	<b>359</b>	<b>565</b>	<b>610</b>	<b>655</b>	<b>700</b>	<b>741</b>

\*these values do not include recycled water

## 5.2 Supply and Demand Comparison during Dry Years

Table 5-2 presents the projected water supply compared with the potential single and multiple dry water year demands. The projected single and multiple dry water year demands were determined from historic data analyzed by West MWD and Metropolitan Water District that shows a 4 to 8 percent increase in water demands in their service areas during drought years.

**Table 5.2 Current, Single and Multiple Dry Water Year Demands**

		Multiple Dry-Water Year Demands		
Projected Normal Water Year Supply	Projected Single Dry Water Year Demand	Year 1	Year 2	Year 3
Fiscal Year 00-01	Fiscal Year 01-02	FY 01-02	FY 02-03	FY 03-04
9,931	10,418	10,418	10,303	10,690
<b>2005</b>	<b>2006</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
10,440	10,962	10,962	10,858	11,275
<b>2010</b>	<b>2011</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
11,302	11,867	11,867	11,754	12,206
<b>2015</b>	<b>2016</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
12,194	12,803	12,803	12,681	13,169
<b>2020</b>	<b>2021</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
13,110	13,765	13,765	13,634	14,159
<b>2025</b>	<b>2026</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>
13,997	14,697	14,697	14,557	15,117
<b>% of Normal</b>	<b>105%</b>	<b>105%</b>	<b>104%</b>	<b>108%</b>

In the event of consecutive dry years and reductions in the available water from West Basin MWD, the County of Los Angeles Board of Supervisors has adopted a water shortage contingency plan known as the Phased Water Conservation Plan (PWCP). The purpose of the PWCP is to reduce overall water demands throughout the District in the event of limited water supplies. Under the PWCP reductions are made in phases to reduce water uses in percentages. Section 7 of this report gives further details of this plan.

## **6.0 WATER DEMAND MANAGEMENT MEASURES**

On April 11, 1996, the District became signatory to the Memorandum of Understanding (MOU) regarding the California Urban Water Conservation Council (CUWCC) and is, therefore, a member of the CUWCC. Pursuant to Section 10631.h. of the Urban Water Management Plan Act (UWMPA), urban water suppliers that are members of the CUWCC may submit the annual reports identifying water demand management measures, also known as best management practices (BMPs), currently being implemented, or scheduled for implementation, to satisfy the requirements of Section 10631.f. of the UWMPA.

Please refer to Appendix C for the District's 2004 Best Management Practices Annual Report.

## 7.0 WATER SHORTAGE CONTINGENCY PLAN

### 7.1 Water Shortage Response

As a result of a significant drought that occurred in Los Angeles County between 1987 and 1991 and the associated water supply shortage, the County of Los Angeles Board of Supervisors (BOS) approved the Phased Water Conservation Plan (PWCP) on March 23, 1991. For a copy of the approved PWCP, see Appendix C. Depending upon the severity of the situation, the BOS can use the PWCP to impose phases of voluntary and mandatory water reduction of water use of up to 50% throughout the District. The objective of the PWCP is to minimize the effects of a water shortage on service area water users by encouraging customers to maximize beneficial uses of available water resources.

The PWCP is comprised of nine "Phases" that call for the reduction of water use in order to meet a conservation target. The PWCP has been implemented only once (in 1991) when the BOS determined that the District would suffer a severe water shortage unless water rationing was applied. The PWCP accomplishes this by: (1) Setting in place a conservation target in phases to reduce water usage; (2) Financially discouraging wasteful or unreasonable water use and encouraging water conservation.

Table 7-1 displays the rationing stages the BOS adopted to reduce water usage. The conservation target is a percentage of the quantity used by each customer during a baseline billing period set by the BOS.

**Table 7-1 Rationing Stages**

Phased Water Conservation Plan									
RATIONING STAGES									
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8	Phase 9
Anticipated shortage in water supply	10%	15%	20%	25%	30%	35%	40%	45%	50%
Conservation Target as a Percent of Baseline Use	90%	85%	80%	75%	70%	65%	60%	55%	50%
Type of Rationing Program	Voluntary	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory

Source: Los Angeles County Ordinance No. 91-0075M

To discourage wasteful or unreasonable water use, a conservation surcharge is imposed for water use between the target goals and the baseline quantity. The conservation surcharge is \$3.00 per hcf (hundred cubic feet), which is approximately double to triple the normal quantity charge for water in the District. The baseline quantity is calculated as a customer's actual water usage during the "baseline" billing period or the District average, whichever is higher. For water use in excess of the

baseline quantity, the surcharge is \$6.00 per hcf, which is three to five times the normal water quantity charge in the District.

In 1991, the BOS declared a "Phased 3" water shortage for the District, which amounted to a 20 percent reduction in water usage. Therefore, a customer was charged the normal water rate for water usage up to 80 percent of the their baseline quantity. The \$3.00 per hcf surcharge was applied for water usage between 80 percent and 100 percent of the baseline quantity and a \$6.00 per hcf surcharge was assessed on water used in excess of 100 percent of the baseline quantity. These surcharges were in addition to the normal quantity charges for water use. In the event that a conservation phase is declared by the BOS, the Plan also calls for the water conservation measures shown in Table 7-2, as water shortage increases.

**Table 7.2 Phased Water Conservation Plan**

Phased Water Conservation Plan Water Conservation Measures in Phases				
Phase	Cutback %	Landscape Watering Restrictions	Construction Meter Restrictions	Other Restrictions
I	10	None	None	None
II	15	None	None	None
III	20	None	No New Construction Meters	Issuance Of "Will Serve" Letter Discontinued*
IV	25	Every Other Day	No New Construction Meters	Issuance Of "Will Serve" Letter Discontinued*
V	30	Every Other Day	No New Construction Meters	Issuance Of "Will Serve" Letter Discontinued*
VI	35	Every Third Day	No New Construction Meters	Issuance Of "Will Serve" Letter Discontinued*
VII	40	Trees and Shrubs only by Bucket	Remove All Construction Meters	Issuance Of "Will Serve" Letter and Installation of all New Permanent Meters Discontinued*
VIII	45	Trees and Shrubs only by Bucket	Remove All Construction Meters	Issuance Of "Will Serve" Letter and Installation of all New Permanent Meters Discontinued*
IX	50	Trees and Shrubs only by Bucket	Remove All Construction Meters	Issuance Of "Will Serve" Letter and Installation of all New Permanent Meters Discontinued*

"Will Serve" letters will be issued that will allow recordation of final maps; however, permanent metered service to the newly created lots will not be authorized until the current drought is over (mandatory rationing discontinued).

## 7.2 Catastrophic Water Supply Interruption

In the event of a catastrophe, the District will take the following measures to prevent water shortages: (1) Utilizing emergency interconnections with Las Virgenes Municipal Water District and Los Angeles Department of Water and Power, (2) Phased Water Conservation Plan, and (3) "No Waste" Ordinance.

The District has also prepared an Emergency Response Plan (ERP) that includes a response procedure for any foreseeable emergency in the District. A copy of the table of contents for the ERP is included in Appendix D.

## 7.3 Water Shortage Contingency Ordinances

The Board of Supervisors adopted Ordinances No. 91-0075M on May 23, 1991, which established the Phased Water Conservation Plan, and Water Wasting Prohibition Ordinance No. 91-0046U on March 21, 1991. A copy of this ordinance and accompanying LA County Code is included in Appendix E.

## 7.4 Three Year Minimum Water Supply

The Urban Water Management Act states that an UWMP must consider the upcoming three years as dry years based on the driest three year historic sequence. Table 7-3 displays the current normal/average water year water supply for the District and the projected demands for a single dry water year and three driest water years for the District. The three driest water years for the District was from 1990 to 1992. Based on the water demand for those years the County sought, through its Phased Water Conservation Plan, a reduction in water usage from 5 percent to 3 percent.

**Table 7-3 Minimum Water Supply**

Minimum Water Supply (In Acre-Feet/Year)				
		Multiple Dry Water Years		
Average / Normal Water Year	Single Dry Water Year	Year	Year	Year
		2006	2007	2008
		8%	5%	3%
9,360	10,418	10,109	9,828	9,641

## 7.5 Water Shortage Stages Triggering Mechanisms

The PWCP's Authorization to Implement Water Conservation requires the BOS to determine the projected water shortage in the County. This can be influenced by the District's water supplier, West Basin MWD or by the regional supplier, MWD. In addition to a water supply shortage, there could be occurrences in the District that could trigger

the implementation of voluntary or mandatory water conservation, such as a break in one of the main distribution lines, landslide, or earthquake.

However, once the BOS determines a water conservation phase should be implemented, a public hearing must be held for the purposes of determining whether a shortage exists in the Districts and which phase should be implemented.

## **7.6 Mandatory Prohibitions on Water Wasting**

On March 21, 1991, the Board of Supervisors adopted "No Waste" Ordinance No. 91-0046U that specified a number of water saving measures that applied only to unincorporated areas of the County. As shown in Appendix E, this Ordinance includes the following prohibitions:

- Washing down paved surfaces is prohibited unless required for health or safety
- Landscape watering is prohibited between 10:00 a.m. and 5:00 p.m.
- Excessive landscape watering that results in runoff into adjoining streets, parking lots or alleys is prohibited
- Plumbing leaks must be repaired as soon as practical
- Washing of vehicles is prohibited excepted at a commercial carwash or with a hand-held bucket or hose equipped with an automatic shutoff nozzle
- Serving drinking water at public eating places is prohibited unless requested by customers
- Water used in decorative fountains must flow through a recycling system

This Ordinance was enacted on March 1991 and scheduled to sunset in January 1993.

## **7.7 Excessive Use Penalties**

Any customer that violates the regulations and restrictions on water use set forth in the "No Waste" Ordinance or Phased Water Conservation Plan shall be penalized. According to the Phased Water Conservation Plan, a customer that uses water in excess of the target quantity will be assessed a conservation surcharge of \$3.00 to \$6.00 per hcf on to their next water bill. In the event a customer violates the provisions in the "No Waste" Ordinance a fine of \$100.00 will be issued for the first infraction and a \$500.00 fine for each subsequent infractions. In addition, the District may disconnect a customer's water service if their account remains delinquent or their water use continues to be excessive during drought periods. If water service is disconnected due to excessive water use, it shall be restored upon payment of a re-connection fee as described in the District Rules and Regulations.

## **7.8 Revenue and Expenditure Impacts and Measures to Overcome Impacts**

The implementation of the PWCP could result in a significant short-term reduction in the District's revenue. Revenue losses could range from a 10 percent during Phase 1 to approximately 50 percent by Phase 9.

The District's sources of funding are structured into four categories: Service Charge, Facility Surcharge, Water Quantity Charge, and Standby Charges. The Service Charge is a fixed connection charge based on the size of the meter. The Facility Surcharge and Water Quantity Charge are based on the actual quantity of water used each month. Standby Charges are assessed on all property and are included on the customer's owner's tax bill. A reduction in water sales will affect only the Water Quantity Charge and Facility Surcharge, which in turn affect the maintenance and operation revenues, and capital improvements for the District.

If water sales do affect the operation and maintenance revenues, the District has the following measures to reduce such an impact:

- Extra revenues contributed by the conservation surcharge. During the 1991 drought, the revenues collected from the conservation surcharge generated funds which were used to offset a portion of the operation and maintenance costs.
- Delayed capital improvement projects. If necessary, the BOS can authorize the transfer of funds in the District's Accumulative Capital Outlay (ACO) Fund allocated for capital improvement projects to be transferred to the District's General Fund.
- Increased water rates. If ACO funds are not available, the BOS could increase water rates to meet operational needs.

## **7.9 Reduction Measuring Mechanism in Water Use**

Data on the District's supply and demand is collected and analyzed on a monthly basis. Water meter readings are collected bimonthly and compiled into yearly summaries. During drought periods, supply and demand data is produced and distributed on a monthly basis, with excess water usage violations reported to the District and the customer. Bi-monthly water meter readings are collected and analyzed to determine if the water usage has been reduced to the target goal.

## 8.0 WATER RECYCLING

### 8.1 Wastewater Collection, and Treatment

The production and use of recycled water is limited in the District because the community served is predominately on individual septic systems. A portion of the wastewater generated in the area is collected and treated by small private and publicly owned package wastewater treatment plants serving individual developments. The Los Angeles County Department of Public Works (LACDPW) operates and maintains the collection and treatment systems of three publicly-owned treatment plants (Malibu Mesa Water Reclamation Plant, Malibu Water Pollution Control Plant and Trancas Water Pollution Control Plant) serving the area. The total treatment capacity of these facilities is approximately 312,500 gallons per day (gpd).

In addition to operating the District, the LACDPW Waterworks and Sewer Maintenance Division operates the three wastewater treatment facilities in the District's service area. The Malibu Mesa Water Reclamation Plant provides primary, secondary and tertiary treatment, with disinfection by an ultraviolet system. Tertiary treatment is provided by coagulation, rapid mix, flocculation and sand filtration. The Malibu Water Pollution Control Plant provides primary and secondary treatment with sand filters. Disinfection equipment was installed in 2001. The Trancas Water Pollution Control Plant provides primary and secondary treatment with sand filters. Table 8-1 displays the wastewater collection and treatment averages and capacities for all three facilities.

**Table 8.1 Wastewater Treatment**

Wastewater Treatment					
(in gallons per day)					
Treatment Plant Name	Location (City)	Average Daily Volume (2004)	Maximum Daily Volume (2004)	Year of Planned Build-out	Maximum Daily Volume
Malibu Mesa Water Reclamation Plant	Malibu	152,000	200,000	Build-out Complete	200,000
Malibu Water Pollution Control Plant	Malibu	24,000	36,000	Build-out Complete	51,000
Trancas Water Pollution Control Plant	Malibu	73,000	121,000	Build-out Complete	180,000
<b>Total</b>			357,000		431,000

Source: County WWD

## 8.2 Wastewater Disposal Methods

The effluent produced is disposed using a seepage pit system or a leach field disposal system or recycled and used for irrigation. Table 8-2 displays the current and estimated wastewater disposal and recycled water use within District 29 and Marina Del Rey.

**Table 8.2 Wastewater Disposal & Recycled Water Use**

Estimated Wastewater Disposal & Recycled Water Use (in million of gallons)						
Destination	Treatment Level	2000	2005	2010	2015	2020
Rivers/Stream	Tertiary	0	2	2	2	2
Landscape	Tertiary	56	54	54	54	54
Leachfield	Tertiary	35	36	36	36	36
Total		91	92	92	92	92

Source: County WWD

## 8.3 Recycled Water Currently Being Used

The Malibu Mesa Plant serves an estimated population of 3,360 persons at Pepperdine University in the unincorporated County area, and the Malibu Country Estates, a residential subdivision in the City of Malibu. The wastewater is recycled to Title 22 standards for landscape irrigation. Pepperdine University then uses the recycled water to irrigate approximately 126 acres of landscape at the campus and approximately 1.6 acres of landscape at the plant site. Recycled water generation and use has varied over the past 5 years due to the variation in the volume of wastewater produced, the demand for irrigation based on soil moisture content, and climatic factors. In 2004, nearly 100% of the 45.5 million gallons of wastewater treated at the Malibu Mesa Plant was used for landscape irrigation purposes.

Recycled water use is limited by the volume of wastewater produced and the treatment plant capacity. The LACDPW does not expect the use of recycled water to increase in the future because significant growth is not projected in the plant's service area, resulting in no plan for plant expansion.

### Regional Recycled Programs

In 1991, the West Basin MWD Board of Directors authorized the West Basin Recycled Water Program to recycle up to 100,000 AF/year of wastewater from the City of Los Angeles Hyperion Treatment Plant. Deliveries of recycled water from the project began in March 1995, and today West Basin MWD distributes recycled water to over 150 customers. West Basin MWD's goal is to conduct a phased expansion of the West

Basin Recycled Water Program so that by 2030, recycled water sales will reach 60,000 AF/year, which is close to four times the amount produced currently (21,500 AF in 2005). To date, the program has saved over 48 billion gallons of imported water that would have otherwise been delivered for non-potable end uses.

Because of its remote location, the District does not currently participate in the West Basin Recycled Water Program. The District does, however, indirectly benefit from the program. The more West Basin MWD's other customers use recycled water for irrigation and process water, the more potable water will be available for the District.

#### **8.4 Potential Uses of Recycled Water**

Potential uses of recycled water in the District are landscape irrigation at parks, schools, and commercial centers. Currently, the only recycled water use is at Pepperdine University. The recycled water facilities in the District have limited potential to expand due to the capacity of the existing treatment plants.

#### **8.5 Plan For Optimizing the Use of Recycled Water**

In an effort to optimize the use of recycled water within the greater region, MWD prepared the Southern California Comprehensive Water Reclamation and Reuse Study (SCCWRRS). Under SCCWRRS, MWD has encouraged the collection and use of recycled water in Southern California. In conjunction with West Basin MWD, Metropolitan Water District, and the California Department of Water Resources, the SCCWRRS proposes a plan designed to take advantage of potential surpluses in recycled water that could serve needs in areas throughout the region.

The SCCWRRS consists of a three-part, six-year comprehensive effort to identify regional reclamation systems. Metropolitan Water District's goal is to promote efficient use of all water resources by increasing the use of recycled water and identifying opportunities for and constraints to maximizing water reuse in Southern California.

## **9.0 REFERENCES**

Los Angeles County Department of Public Works. 2000 *Urban Water Management Plan, District No. 29 and Marina Del Rey Water System*

Metropolitan Water District of Southern California. 2005 *Draft Regional Urban Water Management Plan, August 2005*

West Basin Municipal Water District. 2005 *Draft Urban Water Management Plan*

## **APPENDIX A**

### **California Urban Water Management Planning Act**

**Established:** AB 797, Klehs, 1983

**Amended:** AB 2661, Klehs, 1990

AB 11X, Filante, 1991

AB 1869, Speier, 1991

AB 892, Frazee, 1993

SB 1017, McCorquodale, 1994

AB 2853, Cortese, 1994

AB 1845, Cortese, 1995

SB 1011, Polanco, 1995

AB 2552, Bates, 2000

SB 553, Kelley, 2000

SB 610, Costa, 2001

AB 901, Daucher, 2001

SB 672, Machado, 2001

SB 1348, Brulte, 2002

SB 1384, Costa, 2002

SB 1518, Torlakson, 2002

AB 105, Wiggins, 2004

SB 318, Alpert, 2004

## **CALIFORNIA WATER CODE DIVISION 6 PART 2.6. URBAN WATER MANAGEMENT PLANNING**

### **CHAPTER 1. GENERAL DECLARATION AND POLICY**

10610. This part shall be known and may be cited as the "Urban Water Management Planning Act."

10610.2. (a) The Legislature finds and declares all of the following:

- (1) The waters of the state are a limited and renewable resource subject to ever-increasing demands.
- (2) The conservation and efficient use of urban water supplies are of statewide concern; however, the planning for that use and the implementation of those plans can best be accomplished at the local level.
- (3) A long-term, reliable supply of water is essential to protect the productivity of California's businesses and economic climate.
- (4) As part of its long-range planning activities, every urban water supplier should make every effort to ensure the appropriate level of reliability in

its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry water years.

- (5) Public health issues have been raised over a number of contaminants that have been identified in certain local and imported water supplies.
- (6) Implementing effective water management strategies, including groundwater storage projects and recycled water projects, may require specific water quality and salinity targets for meeting groundwater basins water quality objectives and promoting beneficial use of recycled water.
- (7) Water quality regulations are becoming an increasingly important factor in water agencies' selection of raw water sources, treatment alternatives, and modifications to existing treatment facilities.
- (8) Changes in drinking water quality standards may also impact the usefulness of water supplies and may ultimately impact supply reliability.
- (9) The quality of source supplies can have a significant impact on water management strategies and supply reliability.

(b) This part is intended to provide assistance to water agencies in carrying out their long-term resource planning responsibilities to ensure adequate water supplies to meet existing and future demands for water.

10610.4. The Legislature finds and declares that it is the policy of the state as follows:

- (a) The management of urban water demands and efficient use of water shall be actively pursued to protect both the people of the state and their water resources.
- (b) The management of urban water demands and efficient use of urban water supplies shall be a guiding criterion in public decisions.
- (c) Urban water suppliers shall be required to develop water management plans to actively pursue the efficient use of available supplies.

## **CHAPTER 2. DEFINITIONS**

10611. Unless the context otherwise requires, the definitions of this chapter govern the construction of this part.

10611.5. "Demand management" means those water conservation measures, programs, and incentives that prevent the waste of water and promote the reasonable and efficient use and reuse of available supplies.

10612. "Customer" means a purchaser of water from a water supplier who uses the water for municipal purposes, including residential, commercial, governmental, and industrial uses.

10613. "Efficient use" means those management measures that result in the most effective use of water so as to prevent its waste or unreasonable use or unreasonable method of use.

10614. "Person" means any individual, firm, association, organization, partnership, business, trust, corporation, company, public agency, or any agency of such an entity.

10615. "Plan" means an urban water management plan prepared pursuant to this part. A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities. The components of the plan may vary according to an individual community or area's characteristics and its capabilities to efficiently use and conserve water. The plan shall address measures for residential, commercial, governmental, and industrial water demand management as set forth in Article 2 (commencing with Section 10630) of Chapter 3. In addition, a strategy and time schedule for implementation shall be included in the plan.

10616. "Public agency" means any board, commission, county, city and county, city, regional agency, district, or other public entity.

10616.5. "Recycled water" means the reclamation and reuse of wastewater for beneficial use.

10617. "Urban water supplier" means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. An urban water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers. This part applies only to water supplied from public water systems subject to Chapter 4 (commencing with Section 116275) of Part 12 of Division 104 of the Health and Safety Code.

### **CHAPTER 3. URBAN WATER MANAGEMENT PLANS**

#### **Article 1. General Provisions**

10620.

- (a) Every urban water supplier shall prepare and adopt an urban water management plan in the manner set forth in Article 3 (commencing with Section 10640).

- (b) Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.
- (c) An urban water supplier indirectly providing water shall not include planning elements in its water management plan as provided in Article 2 (commencing with Section 10630) that would be applicable to urban water suppliers or public agencies directly providing water, or to their customers, without the consent of those suppliers or public agencies.
- (d)
  - (1) An urban water supplier may satisfy the requirements of this part by participation in areawide, regional, watershed, or basinwide urban water management planning where those plans will reduce preparation costs and contribute to the achievement of conservation and efficient water use.
  - (2) Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.
- (e) The urban water supplier may prepare the plan with its own staff, by contract, or in cooperation with other governmental agencies.
- (f) An urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.

10621.

- (a) Each urban water supplier shall update its plan at least once every five years on or before December 31, in years ending in five and zero.
- (b) Every urban water supplier required to prepare a plan pursuant to this part shall notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. The urban water supplier may consult with, and obtain comments from, any city or county that receives notice pursuant to this subdivision.
- (c) The amendments to, or changes in, the plan shall be adopted and filed in the manner set forth in Article 3 (commencing with Section 10640).

## **Article 2. Contents of Plans**

10630. It is the intention of the Legislature, in enacting this part, to permit levels of water management planning commensurate with the numbers of customers served and the volume of water supplied.

10631. A plan shall be adopted in accordance with this chapter and shall do all of the following:

- (a) Describe the service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.
- (b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a). If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information shall be included in the plan:
  - (1) A copy of any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management.
  - (2) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree.

For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition.

- (3) A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

- (4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.
- (c) Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:
  - (1) An average water year.
  - (2) A single dry water year.
  - (3) Multiple dry water years.

For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.

- (d) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.
- (e)
  - (1) Quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors including, but not necessarily limited to, all of the following uses:
    - (A) Single-family residential.
    - (B) Multifamily.
    - (C) Commercial.
    - (D) Industrial.
    - (E) Institutional and governmental.
    - (F) Landscape.
    - (G) Sales to other agencies.
    - (H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.
    - (I) Agricultural.
  - (2) The water use projections shall be in the same five-year increments described in subdivision (a).

- (f) Provide a description of the supplier's water demand management measures. This description shall include all of the following:
- (1) A description of each water demand management measure that is currently being implemented, or scheduled for implementation, including the steps necessary to implement any proposed measures, including, but not limited to, all of the following:
    - (A) Water survey programs for single-family residential and multifamily residential customers.
    - (B) Residential plumbing retrofit.
    - (C) System water audits, leak detection, and repair.
    - (D) Metering with commodity rates for all new connections and retrofit of existing connections.
    - (E) Large landscape conservation programs and incentives.
    - (F) High-efficiency washing machine rebate programs.
    - (G) Public information programs.
    - (H) School education programs.
    - (I) Conservation programs for commercial, industrial, and institutional accounts.
    - (J) Wholesale agency programs.
    - (K) Conservation pricing.
    - (L) Water conservation coordinator.
    - (M) Water waste prohibition.
    - (N) Residential ultra-low-flush toilet replacement programs.
  - (2) A schedule of implementation for all water demand management measures proposed or described in the plan.
  - (3) A description of the methods, if any, that the supplier will use to evaluate the effectiveness of water demand management measures implemented or described under the plan.

- (4) An estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the supplier's ability to further reduce demand.
- (g) An evaluation of each water demand management measure listed in paragraph (1) of subdivision (f) that is not currently being implemented or scheduled for implementation. In the course of the evaluation, first consideration shall be given to water demand management measures, or combination of measures, that offer lower incremental costs than expanded or additional water supplies. This evaluation shall do all of the following:
  - (1) Take into account economic and noneconomic factors, including environmental, social, health, customer impact, and technological factors.
  - (2) Include a cost-benefit analysis, identifying total benefits and total costs.
  - (3) Include a description of funding available to implement any planned water supply project that would provide water at a higher unit cost.
  - (4) Include a description of the water supplier's legal authority to implement the measure and efforts to work with other relevant agencies to ensure the implementation of the measure and to share the cost of implementation.
- (h) Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water use as established pursuant to subdivision (a) of Section 10635. The urban water supplier shall include a detailed description of expected future projects and programs, other than the demand management programs identified pursuant to paragraph (1) of subdivision (f), that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in average, single-dry, and multiple-dry water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.
- (i) Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.
- (j) Urban water suppliers that are members of the California Urban Water Conservation Council and submit annual reports to that council

in accordance with the "Memorandum of Understanding Regarding Urban Water Conservation in California," dated September 1991, may submit the annual reports identifying water demand management measures currently being implemented, or scheduled for implementation, to satisfy the requirements of subdivisions (f) and (g).

- (k) Urban water suppliers that rely upon a wholesale agency for a source of water, shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (c). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c), including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.

10631.5. The department shall take into consideration whether the urban water supplier is implementing or scheduled for implementation, the water demand management activities that the urban water supplier identified in its urban water management plan, pursuant to Section 10631, in evaluating applications for grants and loans made available pursuant to Section 79163. The urban water supplier may submit to the department copies of its annual reports and other relevant documents to assist the department in determining whether the urban water supplier is implementing or scheduling the implementation of water demand management activities.

10632. The plan shall provide an urban water shortage contingency analysis which includes each of the following elements which are within the authority of the urban water supplier:

- (a) Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50 percent reduction in water supply, and an outline of specific water supply conditions which are applicable to each stage.
- (b) An estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply.
- (c) Actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including,

but not limited to, a regional power outage, an earthquake, or other disaster.

- (d) Additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.
- (e) Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.
- (f) Penalties or charges for excessive use, where applicable.
- (g) An analysis of the impacts of each of the actions and conditions described in subdivisions (a) to (f), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.
- (h) A draft water shortage contingency resolution or ordinance.
- (i) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.

10633. The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area, and shall include all of the following:

- (a) A description of the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.
- (b) A description of the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.
- (c) A description and quantification of the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.

- (d) The projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.
- (e) A description of actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.
- (f) A plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.
- (g) A plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.

10634. The plan shall include information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision (a) of Section 10631, and the manner in which water quality affects water management strategies and supply reliability.

### **Article 2.5 Water Service Reliability**

10635.

- (a) Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.
- (b) The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.

- (c) Nothing in this article is intended to create a right or entitlement to water service or any specific level of water service.
- (d) Nothing in this article is intended to change existing law concerning an urban water supplier's obligation to provide water service to its existing customers or to any potential future customers.

### **Articl 3. Adoption and Implementation of Plans**

10640. Every urban water supplier required to prepare a plan pursuant to this part shall prepare its plan pursuant to Article 2 (commencing with Section 10630).

The supplier shall likewise periodically review the plan as required by Section 10621, and any amendments or changes required as a result of that review shall be adopted pursuant to this article.

10641. An urban water supplier required to prepare a plan may consult with, and obtain comments from, any public agency or state agency or any person who has special expertise with respect to water demand management methods and techniques.

10642. Each urban water supplier shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan. Prior to adopting a plan, the urban water supplier shall make the plan available for public inspection and shall hold a public hearing thereon. Prior to the hearing, notice of the time and place of hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to Section 6066 of the Government Code. The urban water supplier shall provide notice of the time and place of hearing to any city or county within which the supplier provides water supplies. A privately owned water supplier shall provide an equivalent notice within its service area. After the hearing, the plan shall be adopted as prepared or as modified after the hearing.

10643. An urban water supplier shall implement its plan adopted pursuant to this chapter in accordance with the schedule set forth in its plan.

10644.

- (a) An urban water supplier shall file with the department and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption. Copies of amendments or changes to the plans shall be filed with the department and any city or county within which the supplier provides water supplies within 30 days after adoption.
- (b) The department shall prepare and submit to the Legislature, on or before December 31, in the years ending in six and one, a report summarizing the

status of the plans adopted pursuant to this part. The report prepared by the department shall identify the outstanding elements of the individual plans. The department shall provide a copy of the report to each urban water supplier that has filed its plan with the department. The department shall also prepare reports and provide data for any legislative hearings designed to consider the effectiveness of plans submitted pursuant to this part.

10645. Not later than 30 days after filing a copy of its plan with the department, the urban water supplier and the department shall make the plan available for public review during normal business hours.

#### **CHAPTER 4. MISCELLANEOUS PROVISIONS**

10650. Any actions or proceedings to attack, review, set aside, void, or annul the acts or decisions of an urban water supplier on the grounds of noncompliance with this part shall be commenced as follows:

- (a) An action or proceeding alleging failure to adopt a plan shall be commenced within 18 months after that adoption is required by this part.
- (b) Any action or proceeding alleging that a plan, or action taken pursuant to the plan, does not comply with this part shall be commenced within 90 days after filing of the plan or amendment thereto pursuant to Section 10644 or the taking of that action.

10651. In any action or proceeding to attack, review, set aside, void, or annul a plan, or an action taken pursuant to the plan by an urban water supplier on the grounds of noncompliance with this part, the inquiry shall extend only to whether there was a prejudicial abuse of discretion. Abuse of discretion is established if the supplier has not proceeded in a manner required by law or if the action by the water supplier is not supported by substantial evidence.

10652. The California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) does not apply to the preparation and adoption of plans pursuant to this part or to the implementation of actions taken pursuant to Section 10632. Nothing in this part shall be interpreted as exempting from the California Environmental Quality Act any project that would significantly affect water supplies for fish and wildlife, or any project for implementation of the plan, other than projects implementing Section 10632, or any project for expanded or additional water supplies.

10653. The adoption of a plan shall satisfy any requirements of state law, regulation, or order, including those of the State Water Resources Control Board and the Public Utilities Commission, for the preparation of water management plans or conservation plans; provided, that if the State Water Resources Control Board or the Public Utilities

Commission requires additional information concerning water conservation to implement its existing authority, nothing in this part shall be deemed to limit the board or the commission in obtaining that information. The requirements of this part shall be satisfied by any urban water demand management plan prepared to meet federal laws or regulations after the effective date of this part, and which substantially meets the requirements of this part, or by any existing urban water management plan which includes the contents of a plan required under this part.

10654. An urban water supplier may recover in its rates the costs incurred in preparing its plan and implementing the reasonable water conservation measures included in the plan. Any best water management practice that is included in the plan that is identified in the "Memorandum of Understanding Regarding Urban Water Conservation in California" is deemed to be reasonable for the purposes of this section.

10655. If any provision of this part or the application thereof to any person or circumstances is held invalid, that invalidity shall not affect other provisions or applications of this part which can be given effect without the invalid provision or application thereof, and to this end the provisions of this part are severable.

10656. An urban water supplier that does not prepare, adopt, and submit its urban water management plan to the department in accordance with this part, is ineligible to receive funding pursuant to Division 24 (commencing with Section 78500) or Division 26 (commencing with Section 79000), or receive drought assistance from the state until the urban water management plan is submitted pursuant to this article.

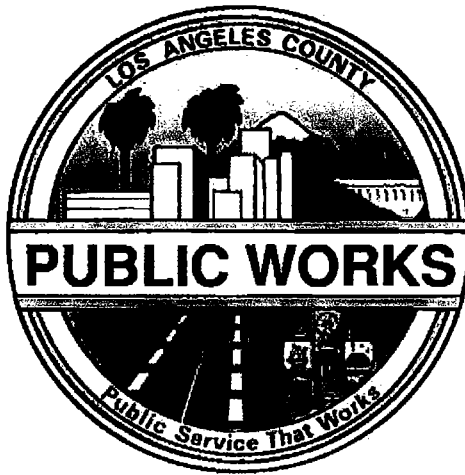
10657.

- (a) The department shall take into consideration whether the urban water supplier has submitted an updated urban water management plan that is consistent with Section 10631, as amended by the act that adds this section, in determining whether the urban water supplier is eligible for funds made available pursuant to any program administered by the department.
- (b) This section shall remain in effect only until January 1, 2006, and as of that date is repealed, unless a later enacted statute, that is enacted before January 1, 2006, deletes or extends that date.

## **APPENDIX B**

### **Phased Water Conservation Plan**

(Part 5 of the LA County Rules and Regulations)



RULES AND REGULATIONS  
OF THE  
LOS ANGELES COUNTY  
WATERWORKS DISTRICTS  
AND THE  
MARINA DEL REY WATER SYSTEM

Last revision adopted on  
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PART 5 - PHASED WATER CONSERVATION PLAN  
SECTION A - STATEMENT OF POLICY AND DECLARATION OF PURPOSE

RULE

5-A-1 STATEMENT OF POLICY AND DECLARATION OF PURPOSE: Because of the water supply conditions prevailing in any or all of the County Waterworks Districts and/or in the area from which any or all of the Districts obtain all or a portion of their supply, the general welfare requires that the water resources available to any or all of the Districts be put to the maximum beneficial use to the extent to which they are capable, and that the unreasonable use, or unreasonable method of use of water be discouraged and that the conservation of such water be practiced with a view to the reasonable and beneficial use thereof in the interest of the people of any or all of the Districts and for the public welfare. The purpose of this Phased Water Conservation Plan is to minimize the effect of a shortage of water supplies on the customers of any or all of the Districts during a water shortage emergency.

SECTION B - AUTHORIZATION TO IMPLEMENT WATER CONSERVATION

5-B-1 AUTHORIZATION TO IMPLEMENT WATER CONSERVATION:

5-B-1a The Board of Directors of the Waterworks Districts may implement the applicable provisions of this conservation plan, following the public hearing required by Rule 5-B-1b, upon its determination that such implementation is necessary to protect the public welfare and safety.

5-B-1b The Board of Directors of the Waterworks Districts shall hold a public hearing for the purpose of determining whether a shortage exists in any or all of the Districts and which measures provided by this ordinance should be implemented. Notice of the time and place of the public hearing shall be published not less than ten (10) days before the hearing in a newspaper of general circulation within the affected District or Districts.

5-B-1c The Board of Directors shall issue its determination of shortage and corrective measures by resolution published in a daily newspaper of general circulation within the affected District or Districts. Conservation surcharges assessed per Rule 5-0-1 shall become effective no sooner than the first full billing period commencing on or after the date of such publication.

PART 5 - PHASED WATER CONSERVATION PLAN (Continued)  
SECTION C - GENERAL PROHIBITION

RULE

5-C-1 GENERAL PROHIBITION:

5-C-1a No customer of the District or Districts shall make, cause, use, or permit the use of water from the District or Districts in a manner contrary to any provision of this ordinance.

5-C-1b In the area of District No. 34 Desert View Highlands known as Ritter Ranch, as defined in Agreement No. 66407 as amended between the District and Ritter Park Associates, the water use limitations contained in Agreement No. 66407 as amended shall be implemented in addition to those required by this Part of these rules.

SECTION D - PHASE I SHORTAGE

5-D-1 PHASE I SHORTAGE:

5-D-1a A Phase I Shortage shall be declared whenever the Board of Directors determines that it is likely that the District will suffer a ten percent (10%) shortage in its water supplies.

5-D-1b A customer with a meter size of one and one-half (1-1/2) inches or larger shall be billed at his or her normal established water rate for all water used up to a target quantity of ninety percent (90%) of the base quantity. All water used in excess of the target quantity shall be subject to a conservation surcharge per Rule 5-0-1. The base quantity shall be determined by the amount of water used on the customer's premises during the corresponding billing period of a base period to be defined by the Board of Directors.

5-D-1c For meter sizes of one (1) inch or less, a base quantity shall be computed and will be the larger of the following amounts:

1. The average of the water usage for all similar sized meters during the corresponding billing period of a base period to be defined by the Board of Directors, or
2. The amount of water used on the customer's premises during the corresponding billing period of a base period to be defined by the Board of Directors.

PART 5 - PHASED WATER CONSERVATION PLAN (Continued)  
SECTION D - PHASE I SHORTAGE (Continued)

RULE

5-D-1 PHASE I SHORTAGE: (Continued)

A customer with a meter size of one (1) inch or less shall be billed at his or her normal established water rate for all water used up to a target quantity of ninety percent (90%) of the base quantity. All water used in excess of the target quantity shall be subject to a conservation surcharge per rule 5-0-1.

SECTION E - PHASE II SHORTAGE

5-E-1 PHASE II SHORTAGE:

5-E-1a A Phase II Shortage shall be declared whenever the Board of Directors determines that it is likely that the District will suffer a shortage of between ten percent (10%) and fifteen percent (15%) in its water supplies.

5-E-1b A customer with a meter size of one and one-half (1 1/2) inches or larger shall be billed at his or her normal established water rate for all water used up to a target quantity of eighty-five percent (85%) of the base quantity. All water used in

5-E-1c excess of the target quantity shall be subject to a conservation surcharge per Rule 5-0-1. The base quantity shall be determined by the amount of water used on the customer's premises during the corresponding billing period of a base period to be defined by the Board of Directors.

5-E-1d For meter sizes of one (1) inch or less, a base quantity shall be computed and will be the larger of the following amounts:

1. The average of the water usage for all similar sized meters during the corresponding billing period to be defined by the Board of Directors, or
2. The amount of water used on the customer's premises during the corresponding billing period of a base period to be defined by the Board of Directors.

A customer with a meter size of one (1) inch or less shall be billed at his or her normal established water rate for all water used up to a target quantity of eighty-five percent (85%) of the base quantity. All water used in excess of the target quantity shall be subject to a conservation surcharge per Rule 5-0-1.

5-D-1c Rev. 7/91

5-E-1c Rev. 7/91

PART 5 - PHASED WATER CONSERVATION PLAN (Continued)  
SECTION F - PHASE III SHORTAGE

RULE

5-F-1 PHASE III SHORTAGE:

5-F-1a A Phase III Shortage shall be declared whenever the Board of Directors determines that it is likely that the District will suffer a shortage of between fifteen percent (15%) and twenty percent (20%) in its water supplies.

5-F-1b A customer with a meter size of one and one-half (1-1/2) inches or larger shall be billed at his or her normal established water rate for all water used up to a target quantity of eighty percent (80%) of the base quantity. All water used in excess of the target quantity shall be subject to a conservation surcharge per Rule 5-0-1. The base quantity shall be determined by the amount of water used on the customer's premises during the corresponding billing period of a base period to be defined by the Board of Directors.

5-F-1c For meter sizes of one (1) inch or less, a base quantity shall be computed and will be the larger of the following amounts:

1. The average of the water usage for all similar sized meters during the corresponding billing period of a base period to be defined by the Board of Directors, or
2. The amount of water used on the customer's premises during the corresponding billing period of a base period to be defined by the Board of Directors.

A customer with a meter size of one (1) inch or less shall be billed at his or her normal established water rate for all water used up to a target quantity of eighty percent (80%) of the base quantity. All water used in excess of the target quantity shall be subject to a surcharge per Rule 5-0-1.

5-F-1d New meters to provide construction water service shall not be issued.

5-F-1e Water service ("Will Serve") letters will be issued, but such letters will be issued with the condition that permanent metered service to any newly created lot will be prohibited until the Board of Directors determines that the provisions of the Phased Water Conservation Plan are no longer in effect or that the severity of the water supply condition may be reduced to a Phase I or Phase II shortage.

5-F-1c Rev. 7/91

PART 5 - PHASED WATER CONSERVATION PLAN (Continued)  
SECTION G - PHASE IV SHORTAGE

RULE

5-G-1 PHASE IV SHORTAGE:

5-G-1a A Phase IV Shortage shall be declared whenever the Board of Directors determines that it is likely that the District will suffer a shortage of between twenty percent (20%) and twenty-five percent (25%) in its water supplies.

5-G-1b A customer with a meter size of one and one-half (1-1/2) inches or larger shall be billed at his or her normal established water rate for all water used up to a target quantity of seventy-five percent (75%) of the base quantity. All water used in excess of the target quantity shall be subject to a conservation surcharge per Rule 5-0-1. The base quantity shall be determined by the amount of water used on the customer's premises during the corresponding billing period of a base period to be defined by the Board of Directors.

5-G-1c For meter sizes of one (1) inch or less, a base quantity shall be computed and will be the larger of the following amounts:

1. The average of the water usage for all similar sized meters during the corresponding billing period of a base period to be defined by the Board of Directors, or
2. The amount of water used on the customer's premises during the corresponding billing period of a base period to be defined by the Board of Directors.

A customer with a meter size of one (1) inch or less shall be billed at his or her normal established water rate for all water used up to a target quantity of seventy-five (75%) of the base quantity. All water used in excess of the target quantity shall be subject to a conservation surcharge per Rule 5-0-1.

5-G-1d The watering of lawn, landscape or other turf area with water supplied by the District shall be limited to not more than every other day and shall be prohibited between the hours of 10:00 a.m. and 5:00 p.m.

5-G-1e New meters to provide construction water service shall not be issued.

5-G-1f Water Service ("Will Serve") letters will be issued but such letters will be issued with the condition that permanent metered service to any newly created lot will be prohibited until the Board of Directors determines that the provisions of the Phased Water Conservation Plan are no longer in effect or that the severity of the water supply condition may be reduced to a Phase I or Phase II shortage.

5-G-1c Rev. 7/91

PART 5 - PHASED WATER CONSERVATION PLAN (Continued)  
SECTION H - PHASE V SHORTAGE

RULE

5-H-1 PHASE V SHORTAGE:

5-H-1a A Phase V Shortage shall be declared whenever the Board of Directors determines that it is likely that the District will suffer a shortage of between twenty-five (25%) and thirty percent (30%) in its water supplies.

5-H-1b A customer with a meter size of one and one-half (1-1/2) inches or larger shall be billed at his or her normal established water rate for all water used up to a target quantity of seventy percent (70%) of the base quantity. All water used in excess of the target quantity shall be subject to a conservation surcharge per Rule 5-0-1. The base quantity shall be determined by the amount of water used on the customer's premises during the corresponding billing period of a base period to be defined by the Board of Supervisors.

5-H-1c For meter sizes of one (1) inch or less, a base quantity shall be computed and will be the larger of the following amounts:

1. The average of the water usage for all similar sized meters during the corresponding billing period of a base period to be defined by the Board of Directors, or
2. The amount of water used on the customer's premises during the corresponding billing period of a base period to be defined by the Board of Directors.

A customer with a meter size of (1) inch or less shall be billed at his or her normal established water rate for all water used up to a target quantity of seventy percent (70%) of the base quantity. All water used in excess of the target quantity shall be subject to a conservation surcharge per Rule 5-0-1.

5-H-d The watering of lawn, landscape or other turf area with water supplied by the district shall be limited to not more than every other day and shall be prohibited between the hours of 10:00 a.m. and 5:00 p.m.

5-H-1e New meters to provide construction water service shall not be issued.

5-H-1f Water service ("Will Serve") letters will be issued but such letters will be issued with the condition that permanent metered service to any newly created lot will be prohibited until the Board of Directors determines that the provisions of the Phased Water Conservation Plan are no longer in effect or that the severity of the water supply condition may be reduced to a Phase I or Phase II shortage.

5-H-1c Rev. 7/91

PART 5 - PHASED WATER CONSERVATION PLAN (Continued)  
SECTION I - PHASE VI SHORTAGE

**RULE**

**5-I-1 PHASE VI SHORTAGE:**

**5-I-1a** A Phase VI Shortage shall be declared whenever the Board of Directors determines that it is likely that the District will suffer a shortage of between thirty (30%) and thirty-five percent (35%) in its water supplies.

**5-I-1b** A customer with a meter size of one and one-half (1-1/2) inches or larger shall be billed at his or her normal established water rate for all water used up to a target quantity of sixty-five percent (65%) of the base quantity. All water used in excess of the target quantity shall be subject to a conservation surcharge per Rule 5-0-1. The base quantity shall be determined by the amount of water used on the customer's premises during the corresponding billing period of a base period to be defined by the Board of Directors.

**5-I-1c** For meter sizes of one (1) inch or less, a base quantity shall be computed and will be the larger of the following amounts:

1. The average of the water usage for all similar sized meters during the corresponding billing period of a base period to be defined by the Board of Directors, or
2. The amount of water used on the customer's premises during the corresponding billing period of a base period to be defined by the Board of Directors.

A customer with a meter size of one (1) inch or less shall be billed at his or her normal established water rate for all water used up to a target quantity of sixty-five percent (65%) of the base quantity. All water used in excess of the target quantity shall be subject to a conservation surcharge per Rule 5-0-1.

**5-I-1d** The watering of lawn, landscape or other turf area with water supplied by the District shall be limited to not more than every third day and shall be prohibited between the hours of 10:00 a.m. and 5:00 p.m.

**5-I-1e** New meters to provide construction water service shall not be issued.

**5-I-1f** Water service ("Will Serve") letters will be issued but such letters will be issued with the condition that permanent metered service to any newly created lot will be prohibited until the Board of Directors determines that the provisions of the Phased Water Conservation Plan are no longer in effect or that the severity of the water supply condition may be reduced to a Phase I or Phase II shortage.

**5-I-1c** Rev. 7/91

**PART 5 - PHASED WATER CONSERVATION PLAN (Continued)**  
**SECTION J - PHASE VII SHORTAGE**

**RULE**

**5-J-1 PHASE VII SHORTAGE:**

**5-J-1a** A Phase VII Shortage shall be declared whenever the Board of Directors determined that it is likely that the District will suffer a shortage of between thirty-five (35%) and forty percent (40%) in its water supplies.

**5-J-1b** A customer with a meter size of one and one-half (1-1/2) inches or larger shall be billed at his or her normal established water rate for all water used up to a target quantity of sixty percent (60%) of the base quantity. All water used in excess of the target quantity shall be subject to a conservation surcharge per Rule 5-0-1. The base quantity shall be determined by the amount of water used on the customer's premises during the corresponding billing period of a base period to be defined by the Board of Directors.

**5-J-1c** For meter sizes of one (1) inch or less, a base quantity shall be computed by averaging the water usage for all similar sized meters during the corresponding billing period of a base period to be defined by the Board of Directors. A customer with a meter size of one (1) inch or less shall be billed at his or her normal established water rate for all water used up to a target quantity of sixty percent (60%) of the base quantity. All water used in excess of the target quantity shall be subject to a surcharge per Rule 6-0-1.

**5-J-1d** The watering of lawn, landscape or other turf area with water supplied by the District shall be prohibited, except that trees and shrubs may be watered at any time by bucket.

**5-J-1e** All meters to provide construction water shall be removed.

**5-J-1f** Water service ("Will Serve") letters will be issued, but such letters will be issued with the condition that permanent metered service to any newly created lot will be prohibited until the Board of Directors determines that the provisions of the Phased Water Conservation Plan are no longer in effect or that the severity of the water supply condition may be reduced to a Phase I or Phase II shortage.

**5-J-1g** No new permanent meters shall be installed.

**SECTION K - PHASE VIII SHORTAGE**

**5-K-1 PHASE VIII SHORTAGE:**

**PART 5 - PHASED WATER CONSERVATION PLAN (Continued)**  
**SECTION K - PHASE VIII SHORTAGE (Continued)**

**RULE**

- 5-K-1a** A Phase VIII Shortage shall be declared whenever the Board of Directors determines that it is likely that the District will suffer a shortage of between forty (40%) and forty-five percent (45%) in its water supplies.
- 5-K-1b** A customer with a meter size of one and one-half (1-1/2) inches or larger shall be billed at his or her normal established water rate for all water used up to a target quantity of fifty-five percent (55%) of the base quantity. All water used in excess of the target quantity shall be subject to a conservation surcharge per Rule 5-0-1. The base quantity shall be determined by the amount of water used on the customer's premises during the corresponding billing period of a base period to be defined by the Board of Directors.
- 5-K-1c** For meter sizes of one (1) inch or less, a base quantity shall be computed by averaging the water usage for all similar sized meters during the corresponding billing period of a base period to be defined by the Board of Directors. A customer with a meter size of one (1) inch or less shall be billed at his or her normal established water rate for all water used up to fifty-five percent (55%) of the base quantity. All water used in excess of the target quantity shall be subject to a conservation surcharge per Rule 5-0-1.
- 5-K-1d** The watering of lawn, landscape or other turf area with water supplied by the District shall be prohibited except that trees and shrubs may be watered at any time by bucket.
- 5-K-1e** All meters to provide construction water shall be removed.
- 5-K-1f** Water service ("Will Serve") letters will be issued but such letters will be issued with the condition that permanent metered service to any newly created lot will be prohibited until the Board of Directors determines that the provisions of the Phased Water Conservation Plan are no longer in effect or that the severity of the water supply condition may be reduced to a Phase I or Phase II shortage.
- 5-K-1g** No new permanent meters shall be installed.

**SECTION L - PHASE IX SHORTAGE**

- 5-L-1** PHASE IX SHORTAGE:
- 5-L-1a** A Phase IX Shortage shall be declared whenever the Board of Directors determines that it is likely that the District will suffer a shortage of between forty-five (45%) and fifty percent (50%) in its water supplies.

**PART 5 - PHASED WATER CONSERVATION PLAN (Continued)**  
**SECTION L - PHASE IX SHORTAGE (Continued)**

**RULE**

- 5-L-1b** A customer with a meter size of one and one-half (1-1/2) inches or larger shall be billed at his or her normal established water rate for all water used up to a target quantity of fifty percent (50%) of the base quantity. All water used in excess of the target quantity shall be subject to a conservation surcharge per Rule 5-0-1. The base quantity shall be determined by the amount of water used on the customer's premises during the corresponding billing period of a base period to be defined by the Board of Directors.
- 5-L-1c** For meter sizes of one (1) inch or less, a base quantity shall be computed by averaging the water usage for all similar sized meters during the corresponding billing period of a base period to be defined by the Board of Directors. A customer with a meter size of one (1) inch or less shall be billed at his or her normal established water rate for all water used up to a target quantity of fifty percent (50%) of the base quantity. All water used in excess of the target quantity shall be subject to a conservation surcharge per Rule 5-0-1.
- 5-L-1d** The watering of lawn, landscape or other turf area including trees and shrubs, with water supplied by the District shall be prohibited.
- 5-L-1e** All meters to provide construction water shall be removed.
- 5-L-1f** Water service ("Will Serve") letters will be issued, but such letters will be issued with the condition that permanent metered service to any newly created lot will be prohibited until the Board of Directors determines that the provisions of the Phased Water Conservation Plan are no longer in effect or that the severity of the water supply condition may be reduced to a Phase I or Phase II shortage.
- 5-L-1g** No new permanent meters shall be installed.

**SECTION M - RELIEF FROM COMPLIANCE**

**5-M-1 RELIEF FROM COMPLIANCE:**

- 5-M-1a** A customer may file an application for relief from any provisions of this ordinance. The Director of Public Works shall develop such procedures as he or she considers necessary to resolve such applications and shall, upon the filing by a customer of an application for relief, take such steps as he or she deems reasonable to resolve the application for relief. The decision of the Director of Public Works shall be final. The Director of Public Works may delegate his or her duties and responsibilities under this Rule as appropriate.

**PART 5 - PHASED WATER CONSERVATION PLAN (Continued)**  
**SECTION M - RELIEF FROM COMPLIANCE (Continued)**

**RULE**

**5-M-1b** The application for relief may include a request that the customer be relieved, in whole or in part, from the conservation surcharge provisions of Rules 5-D-1b, 5-D-1c, 5-E-1b, 5-F-1c, 5-G-1b and 5-G-1c, 5-H-1b, 5-H-1c, 5-I-1b, 5-I-1c, 5-J-1b, 5-J-1c, 5-K-1b, 5-K-1c, 5-L-1b and 5-L-1c.

**5-M-1c** In determining whether to grant relief, and the nature of any relief, the Director of Public Works shall take into consideration all relevant factors including, but not limited to:

1. Whether any additional reduction in water consumption will result in unemployment;
2. Whether additional members have been added to the household;
3. Whether any additional landscaped property has been added to the property since the corresponding billing period of the base year;
4. Changes in vacancy factors in multi-family housing;
5. Increased number of employees in commercial, industrial, and governmental offices;
6. Increased production requiring increased process water;
7. Water uses during new construction;
8. Adjustments to water use caused by emergency health or safety hazards;
9. First filling of a permit-constructed swimming pool; and
10. Water use necessary for reasons related to family illness or health.
11. Whether the basic period for billing should be adjusted due to the unique circumstances of the type of facility, such as a boat, which results in irregular, intermittent periods of consumption.

PART 5 - PHASED WATER CONSERVATION PLAN (Continued)  
SECTION M - RELIEF FROM COMPLIANCE (Continued)

RULE

5-M-1d In order to be considered, an application for relief must be filed with the District within twenty (20) days from the date the provision from which relief is sought becomes applicable to the applicant. No relief shall be granted unless the customer shows that he or she has achieved the maximum practical reduction in water consumption other than in the specific areas in which relief is being sought. No relief shall be granted to any customer who, when requested by the Director of Public Works or designee, fails to provide any information necessary for resolution of the customer's application for relief. The decision shall be issued within twenty (20) days and provided to the customer.

SECTION N - NOTIFICATION OF CUSTOMERS

5-N-1 NOTIFICATION OF CUSTOMERS:

5-N-1a Each customer will be notified on his or her bill as to what the target quantity and the base quantity will be for the applicable billing period.

SECTION O - CONSERVATION SURCHARGES

5-O-1 CONSERVATION SURCHARGES:

5-O-1a Water use in excess of target quantities specified in Rules 5-D-1b, 5-D-1c, 5-E-1b, 5-E-1c, 5-F-1b, 5-F-1c, 5-G-1b, 5-F-1c, 5-H-1b, 5-H-1c, 5-I-1b, 5-I-1c, 5-J-1b, 5-J-1c, 5-K-1b, 5-K-1c, 5-L-1b and 5-L-1c shall be subject to the following conservation surcharges:

1. A conservation surcharge of \$3.00 per 100 cubic-feet shall be assessed for water usage in excess of the target quantity but less than the base quantity set in these Rules for the applicable billing cycle. This conservation surcharge shall be in addition to the normal established water rate.
2. A conservation surcharge of \$6.00 per 100 cubic-feet shall be assessed for water usage in excess of the base quantity set in these Rules for the applicable billing cycle. This conservation surcharge shall be in addition to the normal established water rate.

5-O-1b Violation by any customer of the water use prohibitions of Rules 5-G-1d, 5-H-1d, 5-I-1d, 5-K-1d and 5-K-1d shall be penalized as follows:

PART 5 - PHASED WATER CONSERVATION PLAN (Continued)  
SECTION O - CONSERVATION SURCHARGES (Continued)

RULE  
5-O-1b (Continued)

1. First violation. The Director of Public Works or designee shall issue a written notice of the fact of a first violation to the customer.
2. Second violation. For a second violation during any one water shortage emergency, the Director of Public Works or designee shall issue a written notice of the fact of a second violation to the customer.
3. Third and subsequent violations. For a third and each subsequent violation during any one water shortage emergency, the Director of Public Works or designee may install a flow-restricting device or the service of the customer at the premises at which the violation occurred for installing and for removing the flow-restricting devices and for restoration of normal service. The charge shall be paid before normal service can be restored.

5-O-1c All monies collected by a District pursuant to this ordinance shall be deposited in that District's General Fund as reimbursement for the District's costs and expenses of administering this conservation plan.

5-O-1d The District shall give notice to customer of water conservation surcharges or of water usage violations as follows:

1. Notice of water conservation surcharges or of first and second violations of the water use prohibitions of Rules 5-G-1d, 5-H-1d, 5-I-1d, 5-J-1d, 5-K-1d and 5-L-1d shall be given to the customer in person or by regular mail.
  - B. If the customer is absent from or unavailable at the premises at which the violation occurred, by leaving a copy with some person of suitable age and discretion at the premises and sending a copy through the regular mail to the address at which the customer is normally billed; or
  - C. If a person of suitable age or discretion cannot be found, then by affixing a copy in a conspicuous place at the premises at which the violation occurred and also sending a copy through the regular mail to the address at which the customer is normally billed.

PART 5 - PHASED WATER CONSERVATION PLAN (Continued)  
SECTION O - CONSERVATION SURCHARGES (Continued)

**RULE**

- 5-O-1e The notice of a violation of the water use prohibitions of Rules 5-G-1d, 5-H-1d, 5-I-1d, 5-J-1d, 5-K-1d and 5-L-1d shall contain a description of the facts of the violation, a statement of the possible penalties for each violation and a statement informing the customer of his right to a hearing on the merits of the violation pursuant to Rule 5-P-1.
- 5-O-1f Nothing in these regulations shall prohibit any customer from either installing sub-meters or from pro-rating and collecting from the ultimate users any conservation surcharges assessed when the customer's master meter measures consumption of water for multiple tenancy facilities. However, unless the sub-meters are subsequently billed directly by the District, the customer responsible for the master meter shall continue to be responsible directly to the District for all payments including conservation surcharges.

SECTION P - HEARING REGARDING VIOLATIONS

- 5-P-1 HEARING REGARDING VIOLATIONS:
- 5-P-1a Any customer receiving notice of a third or subsequent violations of the water use prohibitions of Rules 5-G-1d, 5-H-1d, 5-I-1d, 5-J-1d, 5-K-1d or 5-L-1d shall have a right to a hearing by the Director of Public Works or his designee within fifteen (15) days of a mailing or other delivery of the notice of violation.
- 5-P-1b The customer's written request for a hearing must be received within ten (10) days of the issuance of the notice of violation. This request shall stay installation of a flow-restricting device on the customer's premises and the assessment of any surcharge until the Director of Public Works or designee renders his or her decision. The decision shall be issued within ten (10) days of the hearing, a copy of which shall be provided to the customer.
- 5-P-1c The decision of the Director of Public Works shall be final except for judicial review.

SECTION Q - ADDITIONAL WATER SHORTAGE MEASURES

- 5-Q-1 ADDITIONAL WATER SHORTAGE MEASURES:
- The Board of Directors may order implementation of water conservation measures in addition to those set forth in Rules 5-D-1, 5-E-1, 5-F-1, 5-F-1, 5-H-1, 5-I-1, 5-J-1, 5-K-1 and 5-L-1. Such additional water conservation measures shall be implemented in the manner provided in Rule 5-B-1.

PART 5 - PHASED WATER CONSERVATION PLAN (Continued)  
SECTION R - PUBLIC HEALTH AND SAFETY NOT TO BE AFFECTED

RULE

5-R-1

PUBLIC HEALTH AND SAFETY NOT TO BE AFFECTED:

Nothing in this ordinance shall be construed to require the District to curtail the supply of water to any customer when such water is required by that customer to maintain an adequate level of public health and safety.

SECTION S - SEVERABILITY

5-S-1

SEVERABILITY:

If any part of this ordinance or the application thereof to any person or circumstances is for any reason held invalid or unconstitutional by a decision of any court of competent jurisdiction, the validity of the remainder of the ordinance or the application of such provision to other persons or circumstances shall not be affected. The Board of Directors of the District or Districts declares that it would have adopted this ordinance and all provisions hereof irrespective of the fact that any one or more of the provisions be declared invalid or unconstitutional.

## **APPENDIX C**

**Demand Management Measures (DMMs)**

**(also known as)**

**Water Conservation Best Management Practices (BMPs)**

Reported as of 10/2

**Water Supply & Reuse**

Reporting Unit:

**Los Angeles County Waterworks District 29 - Malibu &  
Marina del Rey**

Year:

**2004****Water Supply Source Information**

Supply Source Name

Quantity (AF) Supplied

Supply Type

**Total AF:**

Reported as of 10/2

**Accounts & Water Use**

Reporting Unit Name:

**Los Angeles County Waterworks  
District 29 - Malibu & Marina del  
Rey**

Submitted to

**CUWCC  
03/07/2005**

Year:

**2004****A. Service Area Population Information:**

1. Total service area population 24900

**B. Number of Accounts and Water Deliveries (AF)**

Type	Metered		Unmetered	
	No. of Accounts	Water Deliveries (AF)	No. of Accounts	Water Deliveries (AF)
1. Single-Family	7063	7293	0	0
2. Multi-Family	85	667	0	0
3. Commercial	118	441	0	0
4. Industrial	0	0	0	0
5. Institutional	29	126	0	0
6. Dedicated Irrigation	110	198	0	0
7. Recycled Water	0	0	0	0
8. Other	177	853	0	0
9. Unaccounted	NA	1137	NA	0
<b>Total</b>	<b>7582</b>	<b>10715</b>	<b>0</b>	<b>0</b>

**Metered****Unmetered**

Reported as of 10/2

Reported as of 10/2

## BMP 01: Water Survey Programs for Single-Family and Multi-Family Residential Customers

Reporting Unit:

**Los Angeles County Waterworks**      **BMP Form Status:**      **Year:**  
**District 29 - Malibu & Marina del Rey**      **100% Complete**      **2004**

### A. Implementation

1. Based on your signed MOU date, 04/11/1996, your Agency STRATEGY DUE DATE is: 04/11/1998
2. Has your agency developed and implemented a targeting/marketing strategy for SINGLE-FAMILY residential water use surveys? no
  - a. If YES, when was it implemented?
3. Has your agency developed and implemented a targeting/marketing strategy for MULTI-FAMILY residential water use surveys? no
  - a. If YES, when was it implemented?

### B. Water Survey Data

Survey Counts:	Single Family Accounts	Multi-Family Units
1. Number of surveys offered:	0	0
2. Number of surveys completed:	0	0
<b>Indoor Survey:</b>		
3. Check for leaks, including toilets, faucets and meter checks	no	no
4. Check showerhead flow rates, aerator flow rates, and offer to replace or recommend replacement, if necessary	no	no
5. Check toilet flow rates and offer to install or recommend installation of displacement device or direct customer to ULFT replacement program, as necessary; replace leaking toilet flapper, as necessary	no	no
<b>Outdoor Survey:</b>		
6. Check irrigation system and timers	no	no
7. Review or develop customer irrigation schedule	no	no
8. Measure landscaped area (Recommended but not required for surveys)	no	no
9. Measure total irrigable area (Recommended but not required for surveys)	no	no
10. Which measurement method is typically used (Recommended but not required for surveys)		None
11. Were customers provided with information packets that included evaluation results and water savings recommendations?	no	no
12. Have the number of surveys offered and completed, survey results, and survey costs been	no	no

tracked?

a. If yes, in what form are surveys tracked?

None

b. Describe how your agency tracks this information.

### C. Water Survey Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

### D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?

No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

### E. Comments

Reported as of 10/2

**BMP 02: Residential Plumbing Retrofit**

Reporting Unit:

**Los Angeles County Waterworks  
District 29 - Malibu & Marina del Rey**BMP Form Status: **Year:**  
**100% Complete 2004****A. Implementation**

1. Is there an enforceable ordinance in effect in your service area requiring replacement of high-flow showerheads and other water use fixtures with their low-flow counterparts? no

a. If YES, list local jurisdictions in your service area and code or ordinance in each:

2. Has your agency satisfied the 75% saturation requirement for single-family housing units? no

3. Estimated percent of single-family households with low-flow showerheads: %

4. Has your agency satisfied the 75% saturation requirement for multi-family housing units? no

5. Estimated percent of multi-family households with low-flow showerheads: %

6. If YES to 2 OR 4 above, please describe how saturation was determined, including the dates and results of any survey research.

**B. Low-Flow Device Distribution Information**

1. Has your agency developed a targeting/ marketing strategy for distributing low-flow devices? no

a. If YES, when did your agency begin implementing this strategy?

b. Describe your targeting/ marketing strategy.

Low-Flow Devices Distributed/ Installed	SF Accounts	MF Units
2. Number of low-flow showerheads distributed:	0	0
3. Number of toilet-displacement devices distributed:	0	0
4. Number of toilet flappers distributed:	0	0
5. Number of faucet aerators distributed:	0	0
6. Does your agency track the distribution and cost of low-flow devices?		no

a. If YES, in what format are low-flow devices tracked?

b. If yes, describe your tracking and distribution system :

**C. Low-Flow Device Distribution Expenditures**

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

**D. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? yes

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

The County passed Ordinance No. 91-0097U to require all new buildings to use Ultra Low Flow Toilets (ULFT) and urinals. In addition, West Basin MWD service area and MWD has developed a ULF toilet and showerhead replacement rebate program.

#### **E. Comments**

Reported as of 10/2

**BMP 03: System Water Audits, Leak Detection and Repair**

Reporting Unit:

**Los Angeles County Waterworks  
District 29 - Malibu & Marina del Rey**BMP Form Status: **100% Complete**  
Year: **2004****A. Implementation**1. Has your agency completed a pre-screening system audit for this reporting year? **yes**

2. If YES, enter the values (AF/Year) used to calculate verifiable use as a percent of total production:

a. Determine metered sales (AF) **9578**b. Determine other system verifiable uses (AF) **0**c. Determine total supply into the system (AF) **10715**d. Using the numbers above, if (Metered Sales + Other Verifiable Uses) / Total Supply is < 0.9 then a full-scale system audit is required. **0.89**3. Does your agency keep necessary data on file to verify the values used to calculate verifiable uses as a percent of total production? **yes**4. Did your agency complete a full-scale audit during this report year? **yes**5. Does your agency maintain in-house records of audit results or the completed AWWA audit worksheets for the completed audit? **yes**6. Does your agency operate a system leak detection program? **yes**

a. If yes, describe the leak detection program:

Los Angeles County Waterworks Districts has hires an as needed consultant to conduct leak detection throughout the year for various districts. Leaks are reported by field personnel and meter-read employees. Also, as street improvement projects are submitted for review, old deteriorated water mains are replaced. Our field personnel also report high leak incidents, which are replaced when reported. The Districts maintain leak records.

**B. Survey Data**1. Total number of miles of distribution system line. **207**2. Number of miles of distribution system line surveyed. **35****C. System Audit / Leak Detection Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	<b>21000</b>	<b>21000</b>
2. Actual Expenditures	<b>25462</b>	

**D. "At Least As Effective As"**1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? **yes**

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

The water audit program in place within the County compares the supply purchased versus the water used in order to determine the water loss.

## **E. Comments**

Reported as of 10/2

## **BMP 04: Metering with Commodity Rates for all New Connections and Retrofit of Existing**

Reporting Unit:

**Los Angeles County Waterworks**      **BMP Form Status:**      **Year:**  
**District 29 - Malibu & Marina del Rey**      **100% Complete**      **2004**

### **A. Implementation**

1. Does your agency require meters for all new connections and bill by volume-of-use? yes
2. Does your agency have a program for retrofitting existing unmetered connections and bill by volume-of-use? no
  - a. If YES, when was the plan to retrofit and bill by volume-of-use existing unmetered connections completed?
  - b. Describe the program:
3. Number of previously unmetered accounts fitted with meters during report year. 0

### **B. Feasibility Study**

1. Has your agency conducted a feasibility study to assess the merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters? no
  - a. If YES, when was the feasibility study conducted? (mm/dd/yy)
  - b. Describe the feasibility study:
2. Number of CII accounts with mixed-use meters. 0
3. Number of CII accounts with mixed-use meters retrofitted with dedicated irrigation meters during reporting period. 0

### **C. Meter Retrofit Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

### **D. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? yes
  - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

All existing connections are metered and billed by volume.

### **E. Comments**

Reported as of 10/2

## BMP 05: Large Landscape Conservation Programs and Incentives

Reporting Unit:

**Los Angeles County**  
**Waterworks District 29 -**  
**Malibu & Marina del Rey**

BMP Form Status:  
**100% Complete**

Year:  
**2004**

### A. Water Use Budgets

- |  |     |
|--|-----|
| 1. Number of Dedicated Irrigation Meter Accounts:  | 110 |
| 2. Number of Dedicated Irrigation Meter Accounts with Water Budgets:                       | 0   |
| 3. Budgeted Use for Irrigation Meter Accounts with Water Budgets (AF):                     | 0   |
| 4. Actual Use for Irrigation Meter Accounts with Water Budgets (AF):                       | 0   |
| 5. Does your agency provide water use notices to accounts with budgets each billing cycle? | no  |

### B. Landscape Surveys

- |  |    |
|--|----|
| 1. Has your agency developed a marketing / targeting strategy for landscape surveys? | no |
| a. If YES, when did your agency begin implementing this strategy?                    |    |
| b. Description of marketing / targeting strategy:                                    |    |
| 2. Number of Surveys Offered.  | 0  |
| 3. Number of Surveys Completed.  | 0  |
| 4. Indicate which of the following Landscape Elements are part of your survey:       |    |
| a. Irrigation System Check   | no |
| b. Distribution Uniformity Analysis  | no |
| c. Review / Develop Irrigation Schedules   | no |
| d. Measure Landscape Area  | no |
| e. Measure Total Irrigable Area  | no |
| f. Provide Customer Report / Information   | no |
| 5. Do you track survey offers and results?   | no |
| 6. Does your agency provide follow-up surveys for previously completed surveys?      | no |
| a. If YES, describe below:   |    |

### C. Other BMP 5 Actions

- |   |    |
|---|----|
| 1. An agency can provide mixed-use accounts with ETo-based landscape budgets in lieu of a large landscape survey program. Does your agency provide mixed-use accounts with landscape budgets? | no |
| 2. Number of CII mixed-use accounts with landscape budgets.   | 0  |
| 3. Do you offer landscape irrigation training?  | no |

4. Does your agency offer financial incentives to improve landscape water use efficiency? no

Type of Financial Incentive:	Budget (Dollars/ Year)	Number Awarded to Customers	Total Amount Awarded
a. Rebates	0	0	0
b. Loans	0	0	0
c. Grants	0	0	0

5. Do you provide landscape water use efficiency information to new customers and customers changing services? No

a. If YES, describe below:

6. Do you have irrigated landscaping at your facilities? no

a. If yes, is it water-efficient? no

b. If yes, does it have dedicated irrigation metering? no

7. Do you provide customer notices at the start of the irrigation season? no

8. Do you provide customer notices at the end of the irrigation season? no

#### D. Landscape Conservation Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

#### E. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

#### F. Comments

Reported as of 10/2

## BMP 06: High-Efficiency Washing Machine Rebate Programs

Reporting Unit: **Los Angeles County Waterworks**      BMP Form Status: **100% Complete**      Year: **2004**  
**District 29 - Malibu & Marina del Rey**

### A. Implementation

1. Do any energy service providers or waste water utilities in your service area offer rebates for high-efficiency washers? **Yes**

a. If YES, describe the offerings and incentives as well as who the energy/waste water utility provider is.

Go to West Basin's website [www.westbasin.org](http://www.westbasin.org) Click on Conservation Link

2. Does your agency offer rebates for high-efficiency washers? **no**

3. What is the level of the rebate? **0**

4. Number of rebates awarded. **0**

### B. Rebate Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

### C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? **no**

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

### D. Comments

Reported as of 10/2

**BMP 07: Public Information Programs**

Reporting Unit:

**Los Angeles County Waterworks**

BMP Form

Status:

Year:

**District 29 - Malibu & Marina del Rey****100% Complete****2004****A. Implementation**

1. Does your agency maintain an active public information program to promote and educate customers about water conservation? yes

a. If YES, describe the program and how it's organized.

Three full-time staff dedicated to water conservation practices-newsletter, bill inserts, Web site, radio PSA's, outreach materials at public counter and at public events, planning BMP program for next year

2. Indicate which and how many of the following activities are included in your public information program.

Public Information Program Activity	Yes/No	Number of Events
a. Paid Advertising	no	
b. Public Service Announcement	yes	104
c. Bill Inserts / Newsletters / Brochures	yes	2
d. Bill showing water usage in comparison to previous year's usage	Yes	
e. Demonstration Gardens	no	
f. Special Events, Media Events	yes	3
g. Speaker's Bureau	no	
h. Program to coordinate with other government agencies, industry and public interest groups and media	no	

**B. Conservation Information Program Expenditures**

	This Year	Next Year
1. Budgeted Expenditures	580	580
2. Actual Expenditures	580	

**C. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

**D. Comments**

Reported as of 10/2

**BMP 08: School Education Programs**

Reporting Unit:

**Los Angeles County  
Waterworks District 29 -  
Malibu & Marina del Rey****BMP Form Status:  
100% Complete****Year:  
2004****A. Implementation**

1. Has your agency implemented a school information program to promote water conservation? No

2. Please provide information on your school programs (by grade level):

<b>Grade</b>	<b>Are grade-appropriate materials distributed?</b>	<b>No. of class presentations</b>	<b>No. of students reached</b>	<b>No. of teachers' workshops</b>
Grades K-3rd	no	0	0	0
Grades 4th-6th	No	0	0	0
Grades 7th-8th	No	0	0	0
High School	No	0	0	0

3. Did your Agency's materials meet state education framework requirements? No

4. When did your Agency begin implementing this program?

**B. School Education Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

**C. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

**D. Comments**

Reported as of 10/2

**BMP 09: Conservation Programs for CII Accounts**

Reporting Unit:

**Los Angeles County**

BMP Form Status:

Year:

**Waterworks District 29 -****100% Complete****2004****Malibu & Marina del Rey****A. Implementation**

- |  |    |
|--|----|
| 1. Has your agency identified and ranked COMMERCIAL customers according to use?    | no |
| 2. Has your agency identified and ranked INDUSTRIAL customers according to use?    | no |
| 3. Has your agency identified and ranked INSTITUTIONAL customers according to use? | no |

**Option A: CII Water Use Survey and Customer Incentives Program**

- |   |    |
|---|----|
| 4. Is your agency operating a CII water use survey and customer incentives program for the purpose of complying with BMP 9 under this option? | no |
|---|----|

<b>CII Surveys</b>	<b>Commercial Accounts</b>	<b>Industrial Accounts</b>	<b>Institutional Accounts</b>
a. Number of New Surveys Offered	0	0	0
b. Number of New Surveys Completed	0	0	0
c. Number of Site Follow-ups of Previous Surveys (within 1 yr)	0	0	0
d. Number of Phone Follow-ups of Previous Surveys (within 1 yr)	0	0	0
<b>CII Survey Components</b>	<b>Commercial Accounts</b>	<b>Industrial Accounts</b>	<b>Institutional Accounts</b>
e. Site Visit	no	no	no
f. Evaluation of all water-using apparatus and processes	no	no	no
g. Customer report identifying recommended efficiency measures, paybacks and agency incentives	no	no	no
<b>Agency CII Customer Incentives</b>	<b>Budget (\$/Year)</b>	<b>No. Awarded to Customers</b>	<b>Total \$ Amount Awarded</b>
h. Rebates	0	0	0
i. Loans	0	0	0
j. Grants	0	0	0
k. Others	0	0	0

**Option B: CII Conservation Program Targets**

---

5. Does your agency track CII program interventions and water savings for the purpose of complying with BMP 9 under this option?	no
6. Does your agency document and maintain records on how savings were realized and the method of calculation for estimated savings?	no
7. Estimated annual savings (AF/yr) from site-verified actions taken by agency since 1991.	0
8. Estimated annual savings (AF/yr) from non-site-verified actions taken by agency since 1991.	0

### **B. Conservation Program Expenditures for CII Accounts**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

### **C. "At Least As Effective As"**

- |  |    |
|--|----|
| 1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?  | No |
| a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as." |    |

### **D. Comments**

Program has not been implemented.

Reported as of 10/2

**BMP 09a: CII ULFT Water Savings**

Reporting Unit:

**Los Angeles County**

BMP Form Status:

**100% Complete**

Year:

**2004****Waterworks District 29 -  
Malibu & Marina del Rey**

1. Did your agency implement a CII ULFT replacement program in the reporting year?

Yes

If No, please explain why on Line B. 10.

**A. Targeting and Marketing**

1. What basis does your agency use to target customers for participation in this program? Check all that apply.

CII Sector or subsector

CII ULFT Study subsector targeting

- a. Describe which method you found to be the most effective overall, and which was the most effective per dollar expended.

We found CII sectors and sub sectors most effective because we were able to version our marketing efforts appropriately.

2. How does your agency advertise this program? Check all that apply.

Direct letter

Bill insert

Newsletter

Web page

Newspapers

Trade publications

Other print media

Trade shows and events

Telemarketing

- a. Describe which method you found to be the most effective overall, and which was the most effective per dollar expended.

For the purposes of this program, Trade Allies have proven to be the most effective overall marketing tool, as well as the most effective per dollar expended. Trade Allies include plumbers, distributors, retail home improvement stores and product manufacturers.

**B. Implementation**

1. Does your agency keep and maintain customer participant information? (Read the Help information for a complete list of all the information for this BMP.)
2. Would your agency be willing to share this information if the CUWCC did a study to evaluate the program on behalf of your agency?
3. What is the total number of customer accounts participating in the program during the last year ?

Yes

Yes

2

**CII Subsector****Number of Toilets Replaced**

4.	Standard Gravity Tank	Air Assisted	Valve Floor Mount	Valve Wall Mount
a. Offices	0	0	0	0
b. Retail / Wholesale	0	0	0	0

c. Hotels	0	0	0	0
d. Health	0	0	0	0
e. Industrial	0	0	0	0
f. Schools: K to 12	27	0	0	0
g. Eating	0	0	0	0
h. Govern- ment	0	0	0	0
i. Churches	0	0	0	0
j. Other	0	0	0	0

5. Program design. Rebate or voucher

6. Does your agency use outside services to implement this program? Yes

a. If yes, check all that apply. Consultant

7. Participant tracking and follow-up. Telephone  
Site Visit

8. Based on your program experience, please rank on a scale of 1 to 5, with 1 being the least frequent cause and 5 being the most frequent cause, the following reasons why customers refused to participate in the program.

a. Disruption to business	1
b. Inadequate payback	3
c. Inadequate ULFT performance	2
d. Lack of funding	5
e. American's with Disabilities Act	0
f. Permitting	0
g. Other. Please describe in B. 9.	

9. Please describe general program acceptance/resistance by customers, obstacles to implementation, and other issues affecting program implementation or effectiveness.

Customers are generally more willing to participate in the program if the cost of the retrofit is in balance with the amount of the rebate, and the projected water savings is significant. Resistance occurs if the out-of-pocket expense for the retrofit is too costly and the rebate amount is too low.

10. Please provide a general assessment of the program for this reporting year. Did your program achieve its objectives? Were your targeting and marketing approaches effective? Were program costs in line with expectations and budgeting?

### C. Conservation Program Expenditures for CII ULFT

1. CII ULFT Program: Annual Budget & Expenditure Data

	Budgeted	Actual Expenditure
a. Labor	0	0
b. Materials	0	0
c. Marketing & Advertising	0	0

d. Administration & Overhead	0	0
e. Outside Services	0	0
f. Total	0	0

**2. CII ULFT Program: Annual Cost Sharing**

a. Wholesale agency contribution	2800
b. State agency contribution	0
c. Federal agency contribution	0
d. Other contribution	0
e. Total	2800

**D. Comments**

Reported as of 10/2

**BMP 11: Conservation Pricing**

Reporting Unit:

**Los Angeles County Waterworks****District 29 - Malibu & Marina del Rey**

BMP Form

Status:

**100% Complete**

Year:

**2004****A. Implementation****Rate Structure Data Volumetric Rates for Water Service by Customer Class****1. Residential**

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$11627632
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$3603674

**2. Commercial**

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$517767
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$29088

**3. Industrial**

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$0
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$0

**4. Institutional / Government**

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$931205
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$61899

**5. Irrigation**

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$236505
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$23342

**6. Other**

a. Water Rate Structure	Uniform
-------------------------	---------

b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$198225
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$265805

### **B. Conservation Pricing Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

### **C. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? yes

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

The District charges its customers a monthly service charge and a uniform volumetric charge.

### **D. Comments**

Reported as of 10/2

**BMP 12: Conservation Coordinator**

Reporting Unit:

**Los Angeles County Waterworks**

BMP Form

Status:

Year:

**District 29 - Malibu & Marina del Rey****100% Complete****2004****A. Implementation**

1. Does your Agency have a conservation coordinator? yes
2. Is this a full-time position? yes
3. If no, is the coordinator supplied by another agency with which you cooperate in a regional conservation program ?
4. Partner agency's name:
5. If your agency supplies the conservation coordinator:
  - a. What percent is this conservation coordinator's position? 20%
  - b. Coordinator's Name David Rydman
  - c. Coordinator's Title Associate Civil Engineer
  - d. Coordinator's Experience and Number of Years 4 years
  - e. Date Coordinator's position was created (mm/dd/yyyy) 05/01/1998
6. Number of conservation staff, including Conservation Coordinator. 3

**B. Conservation Staff Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	29000	29000
2. Actual Expenditures	29000	

**C. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no
  - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

**D. Comments**

Reported as of 10/2

**BMP 13: Water Waste Prohibition**

Reporting Unit:

**Los Angeles County Waterworks**  
**District 29 - Malibu & Marina del**  
**Rey**

**BMP Form Status:**  
**100% Complete**

**Year:**  
**2004**

**A. Requirements for Documenting BMP Implementation**

1. Is a water waste prohibition ordinance in effect in your service area? no

a. If YES, describe the ordinance:

2. Is a copy of the most current ordinance(s) on file with CUWCC? no

a. List local jurisdictions in your service area in the first text box and water waste ordinance citations in each jurisdiction in the second text box:

**B. Implementation**

1. Indicate which of the water uses listed below are prohibited by your agency or service area.

- a. Gutter flooding no
- b. Single-pass cooling systems for new connections no
- c. Non-recirculating systems in all new conveyor or car wash systems no
- d. Non-recirculating systems in all new commercial laundry systems no
- e. Non-recirculating systems in all new decorative fountains no
- f. Other, please name  
No Water Wasting Ordinance yes

2. Describe measures that prohibit water uses listed above:

On March 21, 1991, the County Board of Supervisors adopted Ordinance No. 91-0046U that called for "No Water Wasting" in only unincorporated areas of the County. They include the following measures: \* Washing down paved surfaces is prohibited unless required for health or safety \* Landscape watering is prohibited between 10:00 a.m. and 5:00 p.m. \* Excessive landscape watering that results in runoff into adjoining streets, parking lots or alleys is prohibited \* Plumbing leaks must be repaired as soon as practical \* Washing of vehicles is prohibited excepted at a commercial carwash or with a hand-held bucket or hose equipped with an automatic shutoff nozzle \* Serving drinking water at public eating places is prohibited unless requested by customers \* Water used in decorative fountains must flow through a recycling system Failure to comply with these measures could have resulted in fines up to \$500. However, this Ordinance was active from March 1991 to January 1993. Currently, there is no water wasting ordinance in effect in the District. Two cities within our service have a similar ordinance implemented the same year.

**Water Softeners:**

3. Indicate which of the following measures your agency has supported in developing state law:

- a. Allow the sale of more efficient, demand-initiated no

regenerating DIR models.

b. Develop minimum appliance efficiency standards that:

i.) Increase the regeneration efficiency standard to at least 3,350 grains of hardness removed per pound of common salt used. no

ii.) Implement an identified maximum number of gallons discharged per gallon of soft water produced. no

c. Allow local agencies, including municipalities and special districts, to set more stringent standards and/or to ban on-site regeneration of water softeners if it is demonstrated and found by the agency governing board that there is an adverse effect on the reclaimed water or groundwater supply. no

4. Does your agency include water softener checks in home water audit programs? no

5. Does your agency include information about DIR and exchange-type water softeners in educational efforts to encourage replacement of less efficient timer models? no

### C. Water Waste Prohibition Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

### D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? yes

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

See B2

### E. Comments

Reported as of 10/2

**BMP 14: Residential ULFT Replacement Programs**

Reporting Unit:

**Los Angeles County Waterworks**      **BMP Form Status:**      **Year:**  
**District 29 - Malibu & Marina del Rey**      **100% Complete**      **2004**

**A. Implementation**

	<b>Single-Family Accounts</b>	<b>Multi- Family Units</b>
1. Does your Agency have program(s) for replacing high-water-using toilets with ultra-low flush toilets?	yes	yes
<b>Number of Toilets Replaced by Agency Program During Report Year</b>		
<b>Replacement Method</b>	<b>SF Accounts</b>	<b>MF Units</b>
2. Rebate	0	0
3. Direct Install	0	0
4. CBO Distribution	0	0
5. Other	0	0
<b>Total</b>	<b>0</b>	<b>0</b>

6. Describe your agency's ULFT program for single-family residences.

District 29's wholesaler, West Basin MWD has increased the effort to change existing property owners toilets with ULF models through incentive programs. Some of the programs in past have included rebates of \$50 for each toilet replaced with a ULF model. From 1991 to 1995 West Basin MWD rebate program replaced 493 single-family and 3,568 multi-family toilets. Over the next 20 years West Basin MWD is planning in replacing approximately 30,000 toilets in their service area.

7. Describe your agency's ULFT program for multi-family residences.

See Question 6

8. Is a toilet retrofit on resale ordinance in effect for your service area? no

9. List local jurisdictions in your service area in the left box and ordinance citations in each jurisdiction in the right box:

City of Malibu

**B. Residential ULFT Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	0	1200
2. Actual Expenditures	0	

**C. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? yes

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective"

as."

In 1991, the County Board of Supervisors adopted Ordinance No. 91-0097U, which required the installation of ultra low flush toilets and urinals in all new buildings within the service area of District 29 and Marina Del Rey.

#### **D. Comments**

We plan to implement a residential ULFT program next year. The cost of each rebate has not yet been determined. Next Year's expenditure estimate assumed \$30 per rebate at 200/year plus processing costs.

## **APPENDIX D**

### **Emergency Response Procedures**

(Table of Contents only)

**LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS**

**LOS ANGELES COUNTY WATERWORKS DISTRICTS**

# **EMERGENCY RESPONSE PROCEDURES**

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Approved by  
Manuel del Real  
Assistant Deputy Director

August 2005

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## **APPENDIX E**

### **Water Conservation Requirements for the Unincorporated Los Angeles County Area**

**County Ordinance No. 91 - 0046U**

## **Los Angeles, CA County Code**

### **Title 11 HEALTH AND SAFETY**

#### **Part 4. Water Conservation Requirements for the Unincorporated Los Angeles County Area**

##### **11.38.620 Hose watering prohibition.**

No person shall hose water or wash down any sidewalks, walkways, driveways, parking areas or other paved surfaces, except as is required for the benefit of public health and safety. Willful violation hereof shall be an infraction punishable by a fine of \$100.00 for the first infraction and \$500.00 each for subsequent infractions. (Ord. 91-0046U § 1 (part), 1991.)

##### **11.38.630 Watering of lawns and landscaping.**

A. No person shall water or cause to be watered any lawn or landscaping between the hours of ten a.m. and five p.m.

B. No person shall water or cause to be watered any lawn or landscaping more than once a day.

C. No person shall water or cause to be watered any lawn or landscaping to such an extent that runoff into adjoining streets, parking lots or alleys occurs due to incorrectly directed or maintained sprinklers or excessive watering.

D. It shall be the duty of all persons to inspect all hoses, faucets and sprinkling systems for leaks and to cause all leaks to be repaired as soon as is reasonably practicable.

E. Willful violation hereof shall be an infraction punishable by a fine of \$100.00 for the first infraction and \$500.00 each for subsequent infractions. (Ord. 91-0046U § 1 (part), 1991.)

##### **11.38.640 Indoor plumbing and fixtures.**

A. It shall be the duty of all persons to inspect all accessible indoor plumbing and faucets for leaks and to cause all leaks to be repaired as soon as is reasonably practicable.

B. Willful violation hereof shall be an infraction punishable by a fine of \$500.00 (Ord. 91-0046U § 1 (part), 1991.)

**11.38.650 Washing vehicles.**

No motor vehicle, boat, trailer or other type of mobile equipment may be washed, except at a commercial carwash or with reclaimed water, unless such vehicle is washed by using a hand-held bucket or a water-hose equipped with an automatic shutoff nozzle. No person shall leave a water hose running while washing a vehicle or at any other time. Willful violation hereof shall be an infraction punishable by a fine of \$100.00 for the first infraction and \$500.00 each for subsequent infractions. (Ord. 91-0046U § 1 (part), 1991.)

**11.38.660 Public eating places.**

No restaurant, hotel, cafeteria, cafe or other public place where food is sold or served shall serve drinking water to any customer unless specifically requested to do so by such customer. Willful violation hereof shall be an infraction punishable by a fine of \$100.00 for the first infraction and \$500.00 each for subsequent infractions. (Ord. 91-0046U § 1 (part), 1991.)

**11.38.670 Decorative fountains.**

No person shall use water to clean, fill or maintain levels in decorative fountains, ponds, lakes, or other similar aesthetic structures unless such water flows through a recycling system. Willful violation hereof shall be an infraction punishable by a fine of \$100.00 for the first infraction and \$500.00 each for subsequent infractions. (Ord. 91-0046U § 1 (part), 1991.)